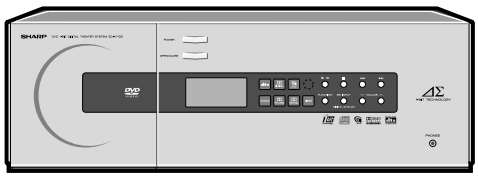
SHARP SERVICE MANUAL

No. S4230SDSH111H



1-BIT DIGITAL RECEIVER WITH DVD

MODEL SD-SH111H

- In the interests of user-safety the set should be restored to its original condition and only parts identical to those specified be used.

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SHARP CORPORATION

This document has been published to be used for after sales service only.
The contents are subject to change without notice.

SAFETY PRECAUTION FOR SERVICE MANUAL

Precaution to be taken when replacing and servicing the Laser Pickup.

The AEL (Accessible Emission Level) of Laser Power Output for this model is specified to be lower than Class 1 Requirements. However, the following precautions must be observed during servicing to protect your eyes against exposure to the Laser beam.

(1) When the cabinet has been removed, the power is turned on without a compact disc, and the Pickup is on a position outer than the lead-in position, the Laser will light for several seconds to detect a disc. Do not look into the Pickup Lens.

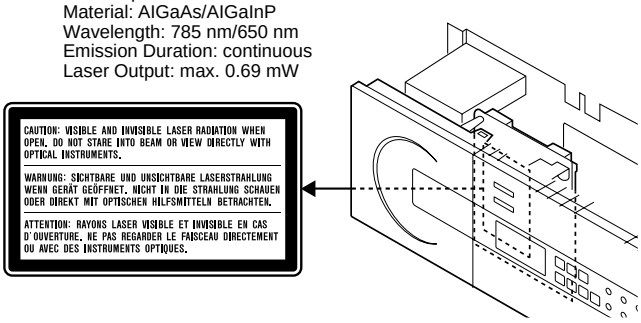
(2) The Laser Power Output of the Pickup inside the unit and replacement service parts have already been adjusted prior to shipping.

(3) No adjustment to the Laser Power should be attempted when replacing or servicing the Pickup.

(4) Under no circumstances look directly into the Pickup Lens at any time.

(5) CAUTION - Use of controls or adjustments, or performance of procedures other than those specified herein may result in hazardous radiation exposure.

Laser Diode Properties
Material: AlGaAs/AlGaInP
Wavelength: 785 nm/650 nm
Emission Duration: continuous
Laser Output: max. 0.69 mW


CAUTION: VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN. DO NOT STARE INTO BEAM OR VIEW DIRECTLY WITH OPTICAL INSTRUMENTS.
WARNUNG: SICHTBARE UND UNSICHTBARE LASERSTRAHLUNG WENN GERÄT GEÖFFNET. NICHT IN DIE STRAHLUNG SCHAUEN ODER DIREKT MIT OPTISCHEN HILFSMITTELN BETRACHTEN.
ATTENTION: RAYONS LASER VISIBLE ET INVISIBLE EN CAS D'OUVERTURE. NE PAS REGARDER LE FAISCEAU DIRECTEMENT OU AVEC DES INSTRUMENTS OPTIQUES.

ADVERSEL-SYNLIG OG USYNLIG LASERSTRÅLING VED ÅBNING. SE IKKE IND I STRÅLEN-HELLER IKKE MED OPTISKE INSTRUMENTER.

VARO! AVATTAESSA OLET ALTTIINA NÄKYVÄLLE JA NÄKYMÄTTÖMÄLLE LASERSÄTEILYLLE ÄLÄ TUIJOTA SÄTEESEEN ÄLÄKÄ KATSO SITÄ OPTISEN LAITTEEN LÄPI.

VARNING-SYNLIG OCH OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD. STIRRA EJ IN I STRÅLEN OCH BETRAKTA EJ STRÅLEN GENOM OPTISKT INSTRUMENT.

VAROITUS! LAITTEEN KÄYTTÄMINEN MUULLA KUIN TÄSSÄ KÄYTTÖOHJEESSA MAINITULLA TAVALLA SAATTAA ALTISTAA KÄYTTÄJÄN TURVALLISUUSLUOKAN 1 YLITTÄVÄLLE NÄKYVÄLLE JA NÄKYMÄTTÖMÄLLE LASERSÄTEILYLLE.

VARNING - OM APPARATEN ANVÄNDS PÅ ANNAT SÄTT ÄN I DENNA BRUKSANVISNING SPECIFICERAS. KAN ANVÄNDAREN UTSÄTTAS FÖR SYNLIG OCH OSYNLIG LASERSTRÅLNING, SOM ÖVERSKRIDER GRÄNSEN FÖR LASERKLASS 1.

FOR A COMPLETE DESCRIPTION OF THE OPERATION OF THIS UNIT, PLEASE REFER TO THE OPERATION MANUAL.

SPECIFICATIONS

■ General

Power source	AC 230 V, 50 Hz
Power consumption	75 W
Dimensions	Width: 450 mm (17-3/4") Height: 152 mm (6") Depth: 152 mm (6")
Weight	4.9 kg (10.8 lbs.)
Terminals	Front speakers, Centre speaker, Surround speakers and Subwoofer: 4 ohms minimum Headphones: 16 - 50 ohms (recommended: 32 ohms) Monitor output: S-video/video Subwoofer Pre Out: 10 kohms Digital output: Optical Digital input (AV 3): Optical AV Terminal [AV 1 (TV)]: SCART type AV Terminal (AV 2): SCART type S-video input (AV 3): S-terminal Video input (AV 3): RCA type Audio input (AV 3): RCA type (L/R)

■ Amplifier

Amplification system	128 fs 1-bit switching (Remarks: fs = 44.1 kHz)
Output power	Front speakers: RMS: 50 W (25 W + 25 W) (10 % T.H.D., 1 kHz) Centre speaker: RMS: 25 W (10 % T.H.D., 1 kHz) Surround speakers: RMS: 50 W (25 W + 25 W) (10 % T.H.D., 1 kHz) Subwoofer: RMS: 25 W (10 % T.H.D., 100 Hz)
A/D noise shaping	7th-order $\Delta\Sigma$ (delta - sigma) modulation

■ DVD/CD player

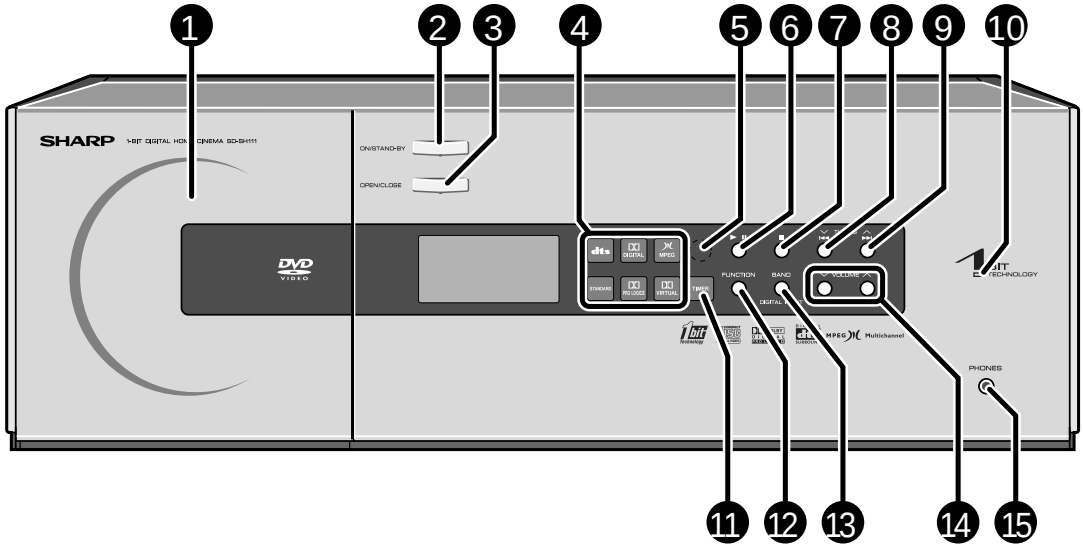
Signal system	NTSC/PAL
Supported disc types	DVD (Region number 2, ALL), audio CD, CD-R, CD-RW
Video signal	Horizontal resolution: 500 lines S/N ratio: 60 dB
Audio signals	Frequency characteristics: Linear PCM DVD: 4 Hz to 22 kHz (48 kHz sampling) / 4 Hz to 44 kHz (96 kHz sampling) CD: 4 Hz to 20 kHz S/N ratio: 96 dB 1 kHz (CD) Dynamic range: 96 dB (Linear PCM DVD) 96 dB (CD) Total harmonic distortion ratio: 0.006 % maximum

■ Tuner

Frequency range	FM: 87.5 - 108 MHz AM: 522 - 1,620 kHz

Specifications for this model are subject to change without prior notice.

NAMES OF PARTS

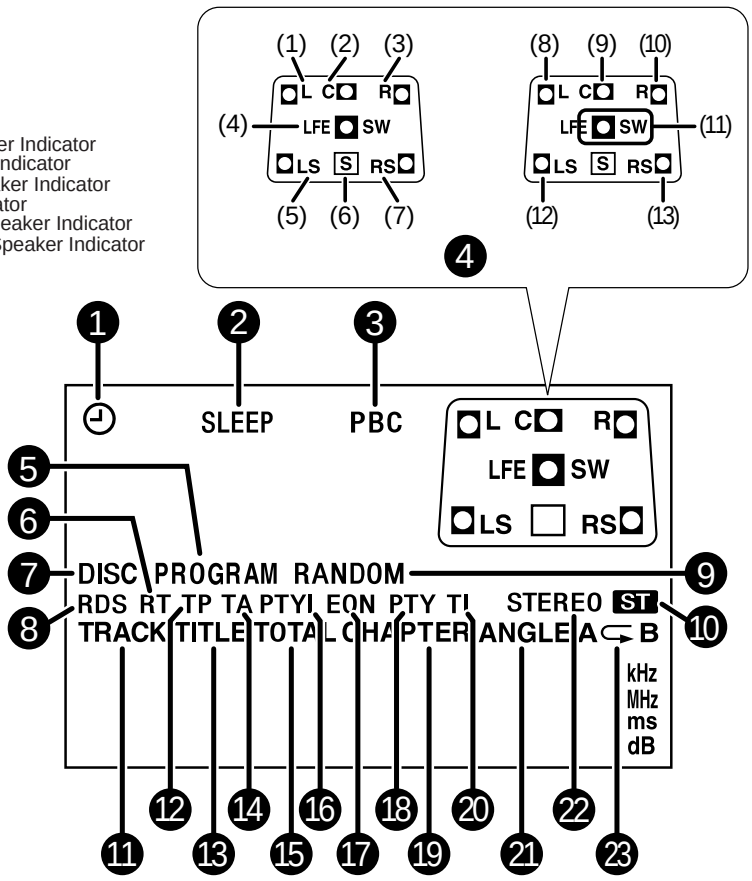


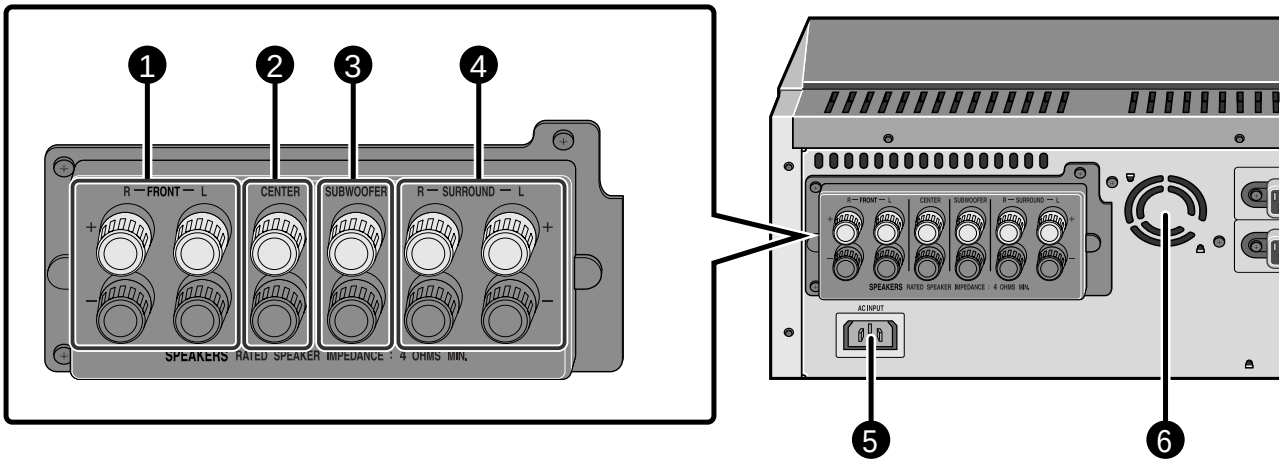
■ Front panel

1. Disc Cover
2. On/Stand-by Button
3. Disc Cover Open/Close Button
4. Sound Mode Indicator
5. Remote Sensor
6. Disc Play or Pause Button
7. Disc Stop Button
8. DVD Chapter Skip, VCD/CD Track Down or Tuning Down Button
9. DVD Chapter Skip, VCD/CD Track Up or Tuning Up Button
10. Power Indicator
11. Timer Set Indicator
12. Function Button
13. Tuner Band, Digital Input Button
14. Volume Up and Down Buttons
15. Headphone Socket

■ Display

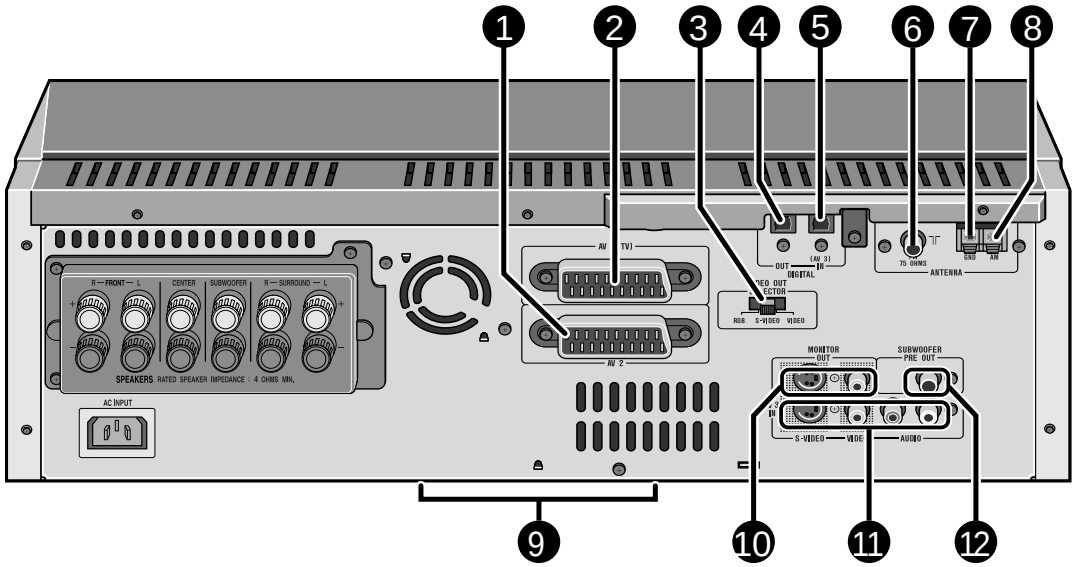
1. Timer Play Indicator
2. Sleep Indicator
3. Playback Control Indicator
4. Audio Signal Indicators/Speaker Indicators
   - (1) Front Left Signal Indicator
   - (2) Centre Signal Indicator
   - (3) Front Right Signal Indicator
   - (4) Low Frequency Effect Indicator
   - (5) Surround Left Signal Indicator
   - (6) Surround Monaural Signal Indicator
   - (7) Surround Right Signal Indicator
   - (8) Left Front Speaker Indicator
   - (9) Centre Speaker Indicator
   - (10) Right Front Speaker Indicator
   - (11) Subwoofer Indicator
   - (12) Left Surround Speaker Indicator
   - (13) Right Surround Speaker Indicator
5. Programme indicator
6. Radio Text Indicator
7. Disc Indicator
8. RDS Indicator
9. VCD/CD Random Play Indicator
10. FM Stereo Receiving Indicator
11. VCD/CD Track Name Indicator
12. Traffic Programme Indicator
13. DVD Title Indicator
14. Traffic Announcement Indicator
15. VCD/CD Total Indicator
16. Dynamic PTY Indicator
17. EON Indicator
18. Programme Type Indicator
19. DVD Chapter Indicator
20. Traffic Information Indicator
21. DVD Angle Indicator
22. FM Stereo Mode Indicator
23. VCD/CD Repeat or Disc A - B Repeat Indicator





■ Rear panel

1. Front Speaker Terminals
2. Centre Speaker Terminals
3. Subwoofer Terminals
4. Surround Speaker Terminals
5. AC Power Input Socket
6. Cooling Fan

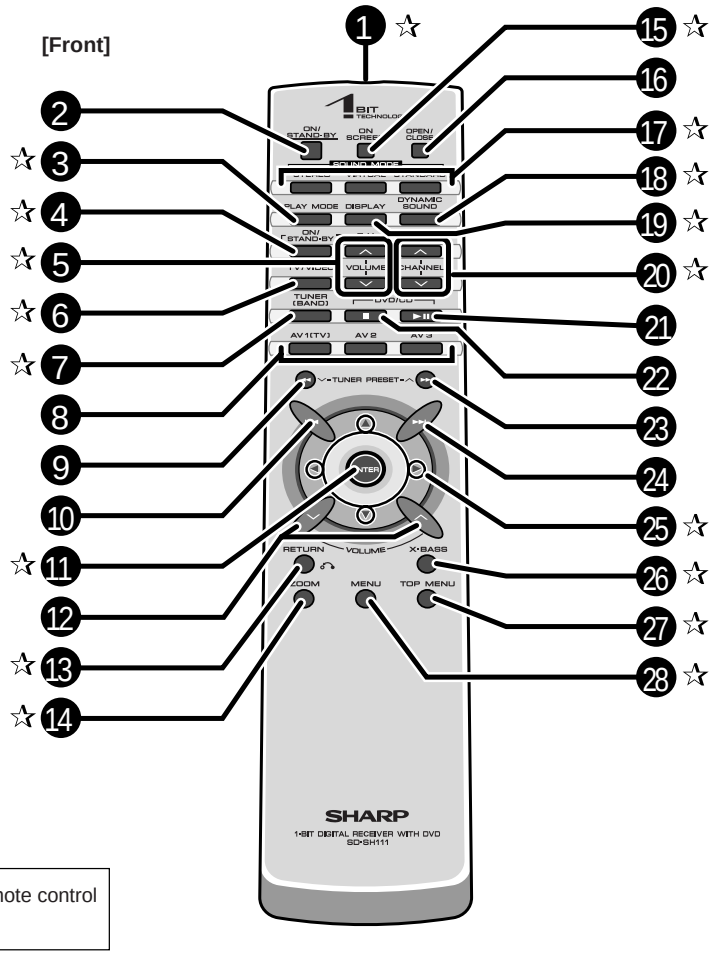


■ Rear panel

1. AV2 SCART Socket
2. AV1 (TV) SCART Socket
3. Video Output Selector Switch
4. Audio Digital Output Socket
5. Audio Digital Input Socket
6. FM 75 Ohms Aerial Socket
7. Aerial Earth Terminal
8. AM Loop Aerial Terminal
9. Mounting Holes for Wall Bracket (Optionally available)
10. Monitor Output Sockets
11. Video and Audio Input Sockets
12. Subwoofer Pre Output Socket

■ Remote control

[Front]

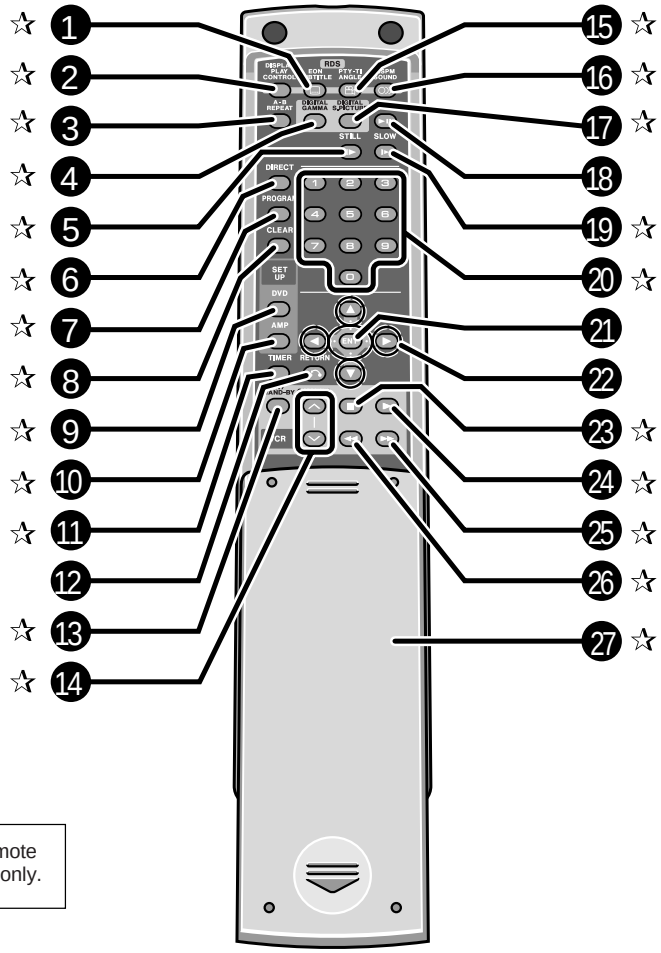


1. **Remote Control Transmitter**
2. On/Stand-by Button
3. **VCD/CD Play Mode Select Button**
4. **TV On/Stand-by Button**
5. **TV Volume Up and Down Buttons**
6. **TV Input Select Button**
7. **Tuner (Band) Button**
8. Function Buttons
9. Disc Fast Reverse, Tuner Preset Down Button
10. DVD Chapter Skip, VCD/CD Track Down Button
11. **Enter Button**
12. Volume Up and Down Buttons
13. **Return Button**
14. **DVD Zoom Button**
15. **TV Display Select Button**
16. Disc Cover Open/Close Button
17. **Sound Mode Select Buttons**
18. **Dynamic Sound Select Button**
19. **Main Unit Display Select Button**
20. **TV Channel Select Buttons**
21. Disc Play or Pause Button
22. Disc Stop Button
23. Disc Fast Forward, Tuner Preset Up Button
24. DVD Chapter Skip, VCD/CD Track Up Button
25. **Cursor Button**
26. **Extra Bass Button**
27. **DVD Top Menu Button**
28. **DVD Menu Button**

Buttons with "☆" mark in the illustration can be operated on the remote control only.

■ Remote control

[Back]



1. **RDS EON or DVD Subtitle Button**
2. **RDS Display Mode Selector or Playback Control Button**
3. **Disc A - B Repeat Button**
4. **DVD/VCD Digital Gamma Button**
5. **DVD/VCD Frame Advance Button**
6. **Direct Button**
7. **Programme Button**
8. **Clear Button**
9. **DVD Initial Setting Button**
10. **Amplifier Initial Setting Button**
11. **Timer Button**
12. Return Button
13. **VCR On/Stand-by Button**
14. **VCR Channel Select Buttons**
15. **RDS Programme Type/Traffic Information Search or DVD Angle Button**
16. **RDS ASPM (Auto Station Programme Memory) or DVD Sound Select Button**
17. **DVD/VCD Super Picture Button**
18. Disc Play or Pause Button
19. **DVD/VCD Slow Button**
20. **Direct Number Buttons**
21. Enter Button
22. Cursor Buttons
23. **VCR Stop Button**
24. **VCR Play Button**
25. **VCR Fast Forward Button**
26. **VCR Rewind Button**
27. **Sliding Cover**

Buttons with "☆" mark in the illustration can be operated on the back of the remote control. Other buttons can be operated on both sides of the remote control only.

DISASSEMBLY

Caution on Disassembly
Follow the below-mentioned notes when disassembling the unit and reassembling it, to keep it safe and ensure excellent performance:
1. Take DVD out of the unit.
2. Be sure to remove the power supply plug from the wall outlet before starting to disassemble the unit.
3. Take off nylon bands or wire holders where they need to be removed when disassembling the unit. After servicing the unit, be sure to rearrange the leads where they were before disassembling.
4. Take sufficient care on static electricity of integrated circuits and other circuits when servicing.

STEP	REMOVAL	PROCEDURE	FIGURE
1	Side Cabinet (Left/Right)	1. Screw ..... (A1) x4 2. Pulled to the arrow direction front.	7-1
2	Top Cabinet	1. Screw ..... (B1) x3	7-1
3	Top Panel	1. Screw ..... (C1) x3 2. moved to the left of the arrow direction.	7-1
4	DSP PWB/ Shield Case	1. Screw ..... (D1) x6 2. Socket ..... (D2)x 5 3. Flet Cable ..... (D3) x2	7-2
5	Rear Panel/Tuner Unit	1. Screw ..... (E1) x13 2. Top Bracket ..... (E2) x2 3. Flat Cable ..... (E3) x1	7-2, 7-3 7-2 7-3
6	Speaker A PWB	1. Socket ..... (F1) x8 2. Screw ..... (F2) x3 3. Flet Cable ..... (F3) x1	7-3
7	Main PWB	1. Socket ..... (G1) x5 2. Screw ..... (G2) x8 3. Socket ..... (G3) x1 4. Flat Cable ..... (G4) x3	7-3
8	DVD Servo PWB (Note 1)	1. Screw ..... (H1) x4 2. Socket ..... (H2) x1 3. Flat Cable ..... (H3) x1	8-1
9	Front Panel	1. Screw ..... (J1) x6 2. Socket ..... (J2) x5	8-1 8-2, 8-3
10	Display PWB	1. Screw ..... (K1) x9	8-2
11	DVD Mechanism	1. Screw..... (L1) x4	8-2
12	1-Bit Amp. Unit	1. Screw ..... (M1) x5	8-3
13	Power A/B PWB	1. Screw ..... (N1) x5	8-3
14	1-Bit Amp. Shield Cover	1. Screw ..... (P1) x23 2. 1-Bit Amp. Bracket .. (P2) x1 3. Heat Sink ..... (P3) x3	8-4
15	1-Bit Amp. PWB	1. Screw ..... (Q1) x12	8-5

*** (Note 1)**
After pulling out the optical pickup connector, wrap the tip of it with conductive aluminium foil or the like to protect the optical pickup from the static electricity.

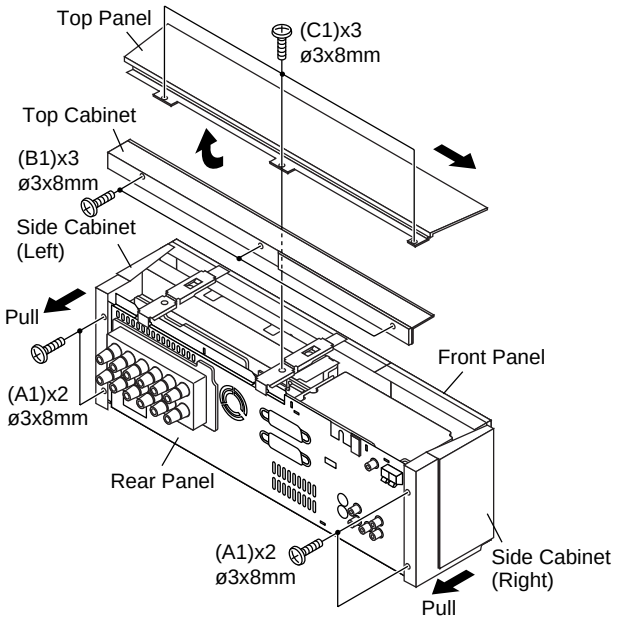


Figure 7-1

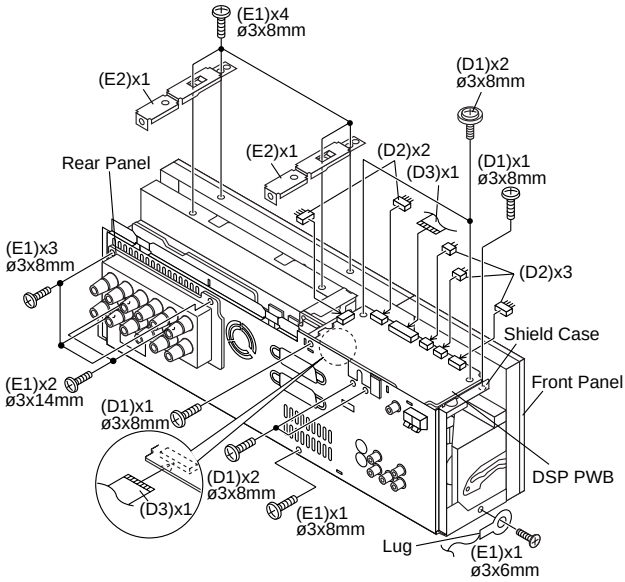


Figure 7-2

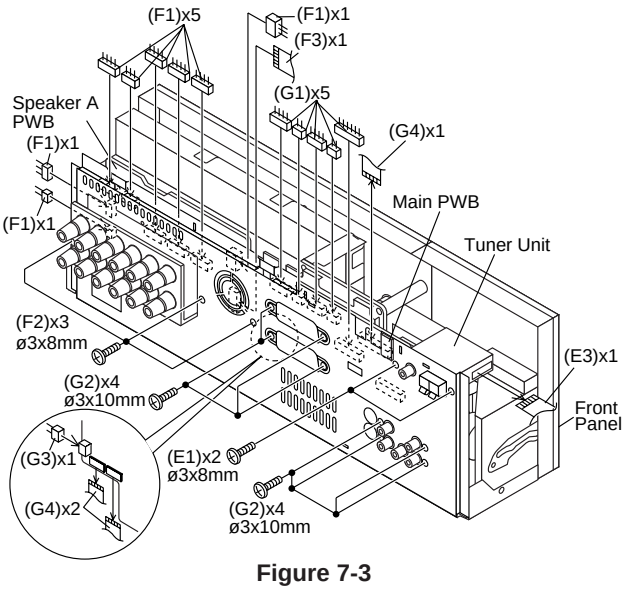


Figure 7-3

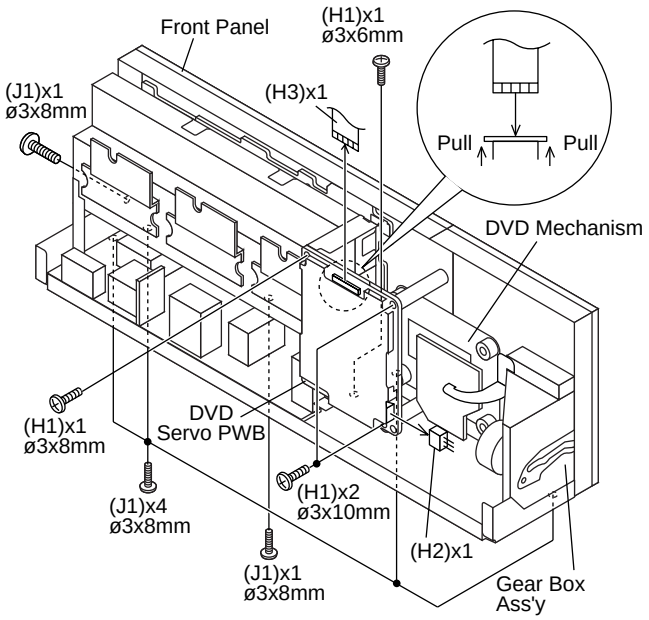


Figure 8-1

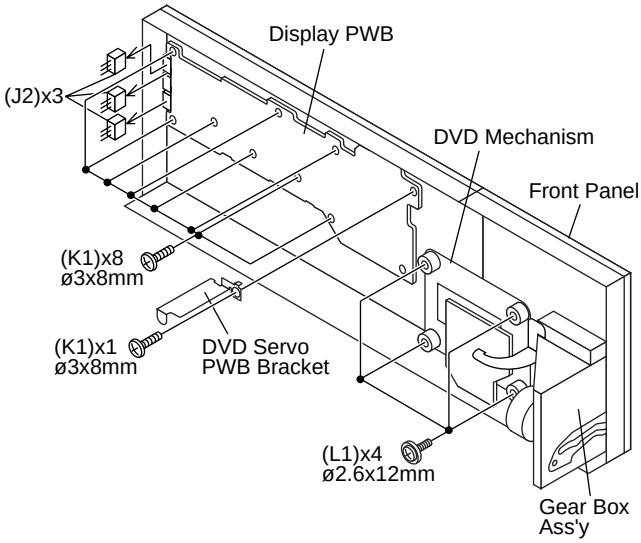


Figure 8-2

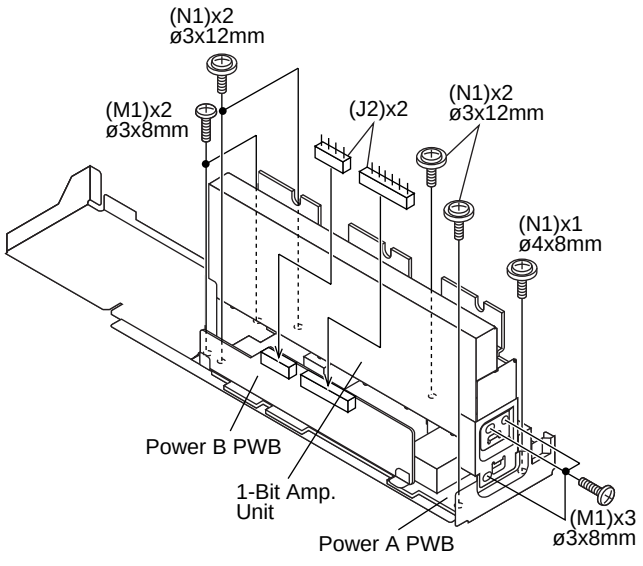


Figure 8-3

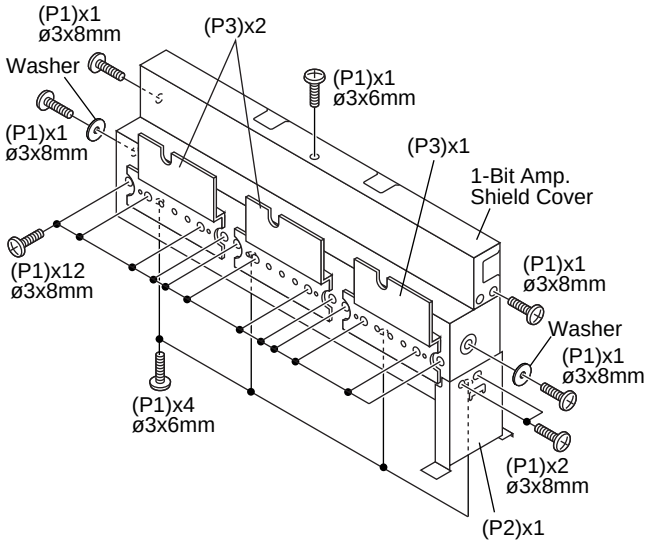


Figure 8-4

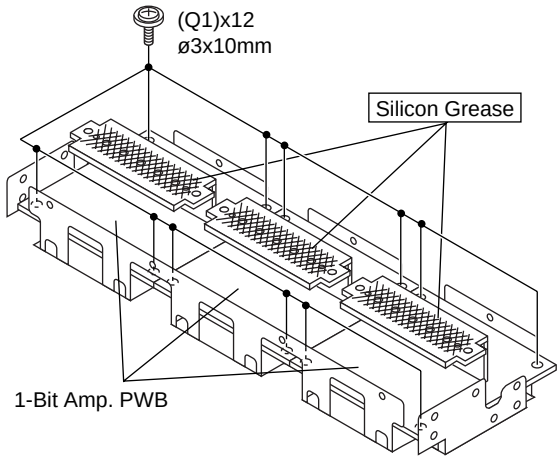


Figure 8-5

How to open the DVD/CD lid (See Fig. 8-6)

1. Remove the side cabinet (left) and lower the CD up lever (A1) in the direction of the arrow.

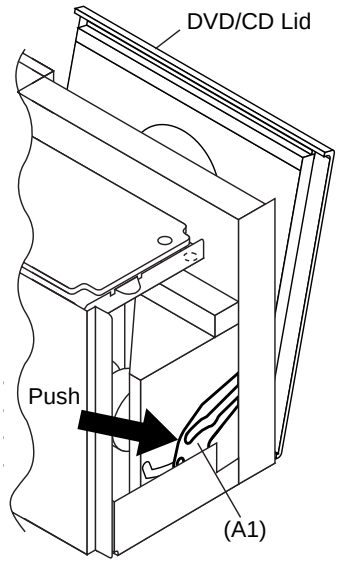


Figure 8-6

REMOVING AND REINSTALLING THE MAIN PARTS

How to Remove the DVD/CD lid motor (See Figs. 9-1 and 9-2)

1. Remove the front panel.
   (Refer to the disassembly method on pages 7 and 8.)
2. Remove the screws (A1) x 5 pcs.
3. Remove the DVD/CD lid gear unit from the front panel.
4. Remove the screws (A2) x 2 pcs. to remove the DVD/CD lid motor.

Caution:
Be careful not to damage the gear.
(If the gear is damaged, noise is heard when searching.)

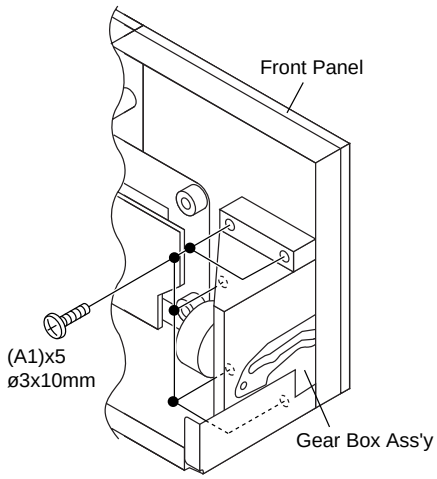


Figure 9-1

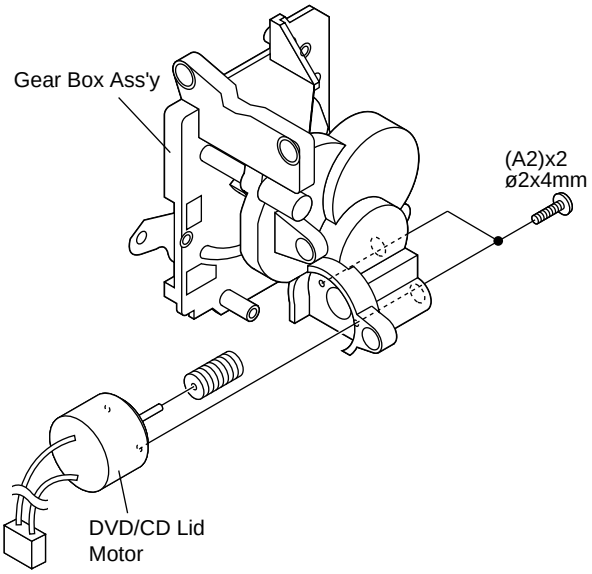


Figure 9-2

WIRING PROCESS DIAGRAM

1-BIT SECTION

Fix the wires with nylon bands as shown.

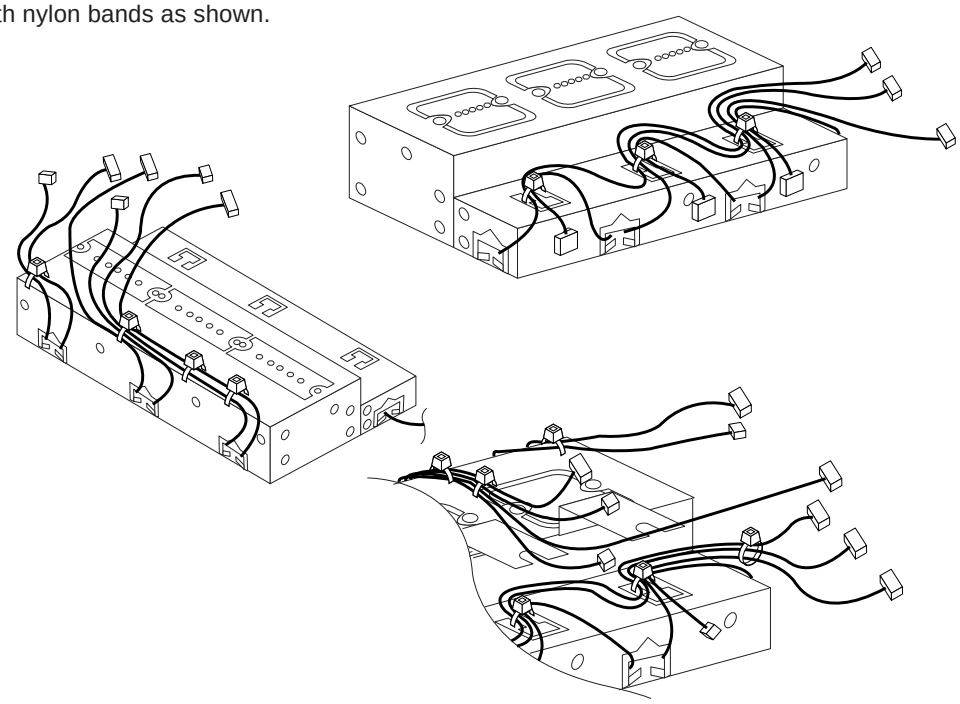
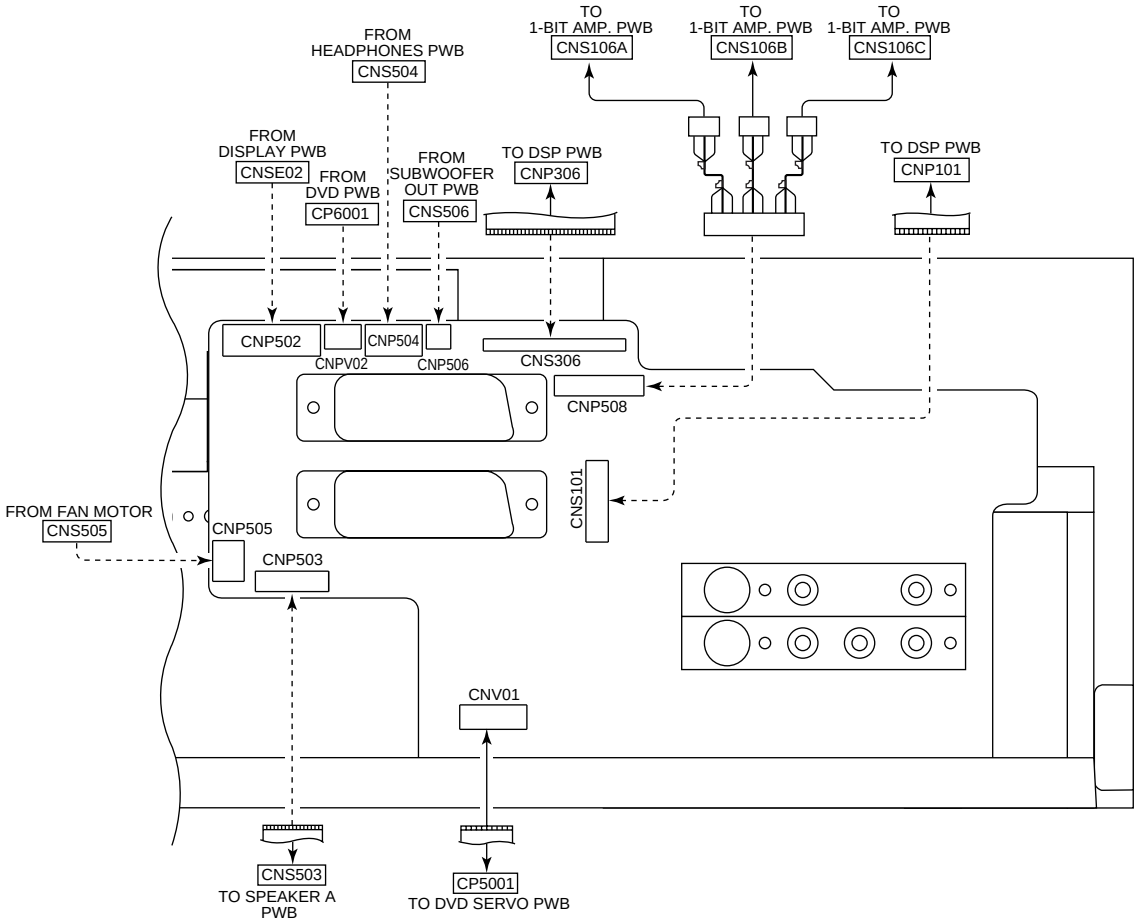


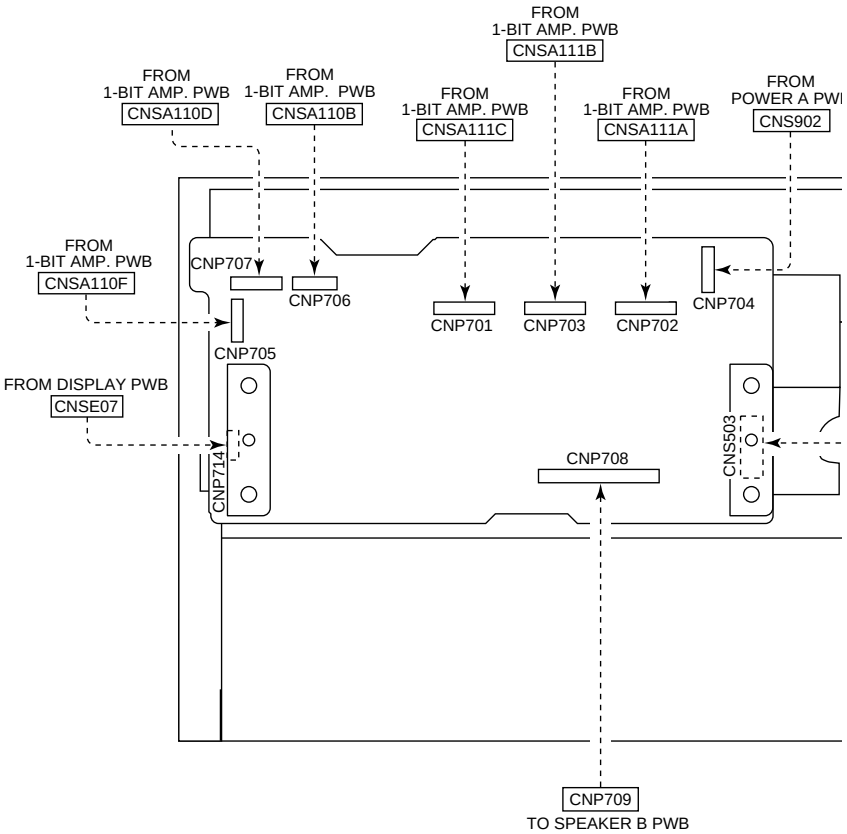
Figure 9-4

ADJUSTMENT

• Adjustment preparation

After removing the rear panel, perform adjustment with connectors connected.





TUNER SECTION

fL: Low-range frequency
fC: Middle-range frequency
fH: High-range frequency

• FM Mute Level

Signal generator: 400 Hz, 22.5 kHz, FM modulated

Frequency	Display	Adjusting Parts	Instrument Connection
98 MHz (26dB) (EFM)	98 MHz	VR1	Input: FM Antenna Terminal Output: Headphones Terminal

Turn the VR1 to set the volume to 26dB.

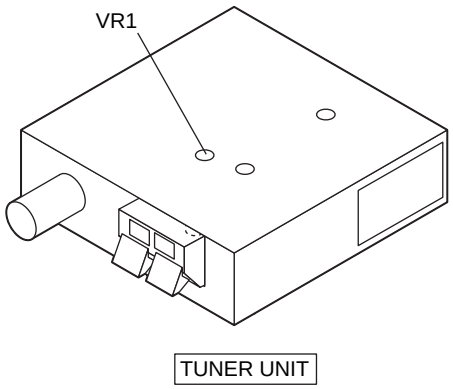


Figure 11-1

● 1-bit amplifier's output offset voltage adjustment

Adjust VRA100 and VRA101 so that the DC voltage between speaker terminals + and - is set to 0 ± 5 mV.

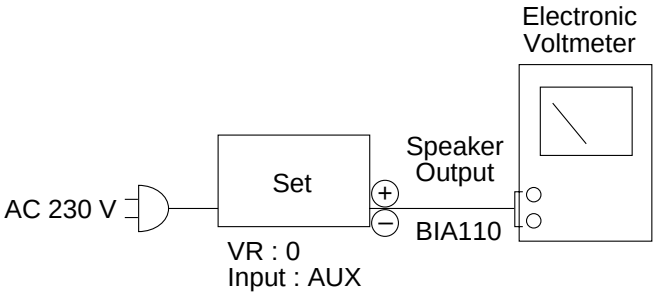


Figure 11-3

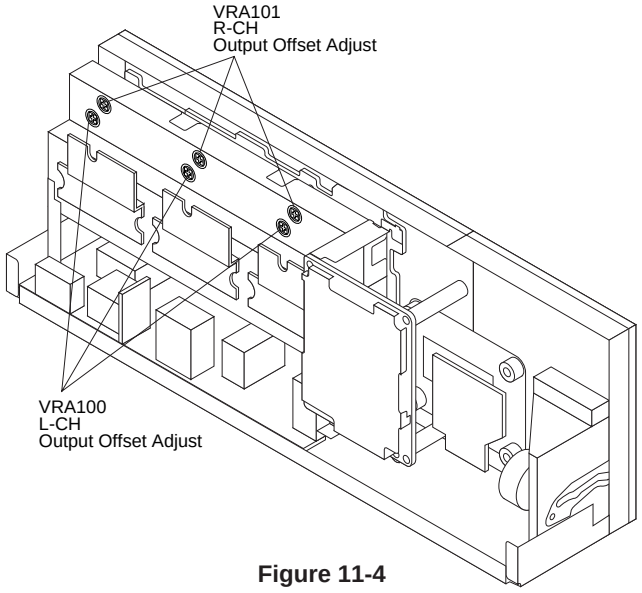


Figure 11-4

TEST MODE

When the tuner test mode is set, the initial setting of frequencies is stored in the preset memory as shown in Table 1. For details, refer to "7. Tuner test" on page 17.
The frequencies registered by the user will be changed when the above setting is performed.

Preset Memory	Frequency FM	Preset Memory	Frequency AM
P1	87.50 MHz	P6	522 kHz
P2	108 MHz	P7	1,620 kHz
P3	90.00 MHz	P8	603 kHz
P4	106.00 MHz	P9	1,404 kHz
P5	98.00 MHz	P10	990 kHz

Table 1 Memory setting

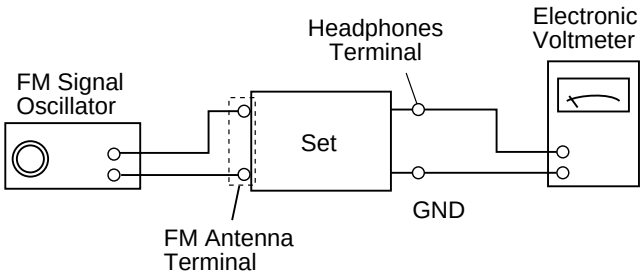


Figure 11-2

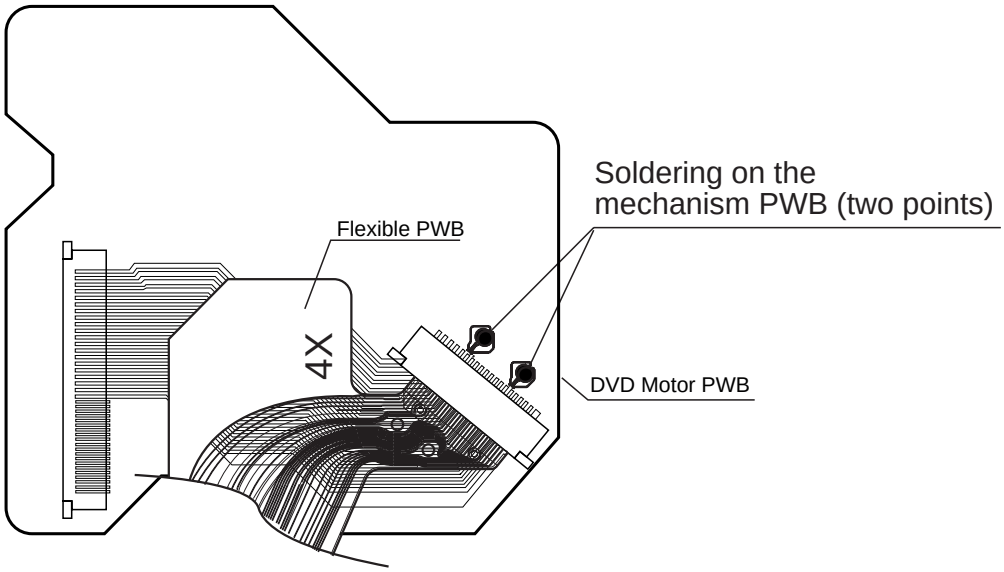
● DVD/CD SECTION

• Adjustment

Since this DVD/CD system incorporates the following automatic adjustment functions, readjustment is not needed when replacing the pickup. Therefore, different PWBs and pickups can be combined freely.
Each time a disc is changed, these adjustments are performed automatically. Therefore, playback of each disc can be performed under optimum conditions.

Notes for handling the mechanism unit

Since the pickup semiconductor laser can easily damaged by the static electricity, handle the mechanism unit with care. To prevent damage by the static electricity during transportation, the LD terminals are short-circuited at 2 points on the PWB. Unsolder them by a soldering iron after completing the connection. When you return the mechanism unit, solder the terminals again.



TEST MODE

• Shifting to the test mode

If the POWER key on the main unit is pressed while the PLAY and VOLUME UP keys are held down in the power off state, the unit enters the test menu mode. “SH111H” is displayed at the top of the FL, and “Ver. ∗∗∗∗” (∗∗∗∗ shows version No.) at the bottom. Then, press the VOLUME UP or DOWN key to select the test mode, and determine it with the PLAY key. If direct keys are pressed on the remote control while the version number is displayed, the unit enters the specified test mode directly.

No.	Test Mode	Direct Key	Display
1	Shipment Test Mode	“1” of ten-key keypad	INITIAL
2	DVD TEST	“2” of ten-key keypad	TONE
3	AMP TEST	“3” of ten-key keypad	AMP
4	KEY TEST	“4” of ten-key keypad	KEY
5	DVD MECHA TEST	“5” of ten-key keypad	MECHA
6	DVD ROM WRITE TEST	“6” of ten-key keypad	DVD ROM
7	TUNER TEST	“7” of ten-key keypad	TUNER
8	ASPM (RDS) TEST	“8” of ten-key keypad	ASPM

∗ In each test mode, “TEST” appears at the top of the FL and that shown under “Display” of the table above at the bottom.

• Canceling the test mode

Pressing the POWER key in the test mode will display COMPLETE for 1 second, and then cancels the test mode.

1. If the power failure occurs in each test mode, cancel the test mode and perform an operation to recover the electricity. (To reset the unit after the electricity resumes, be sure to write in irregular data for RAM check.)

1. Shipment Test Mode

Outline: Initialization of EEPROM in the DVD unit

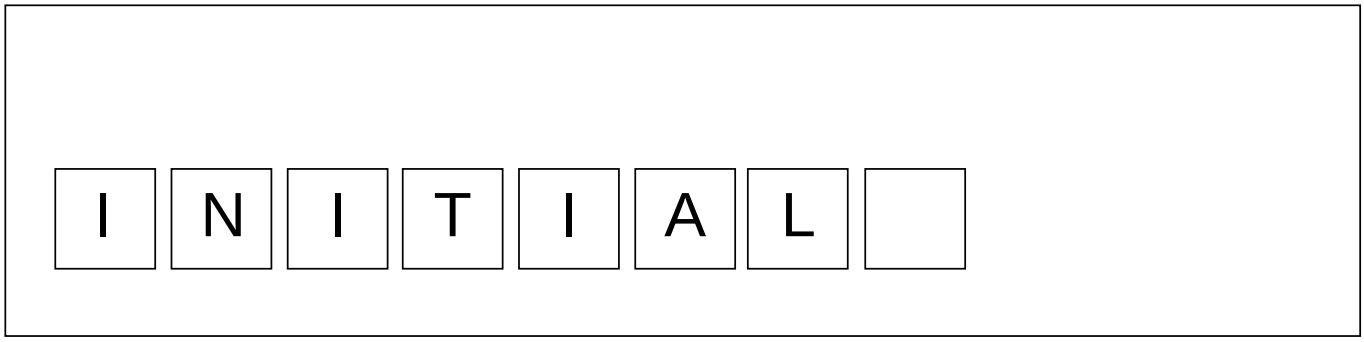
Function: The unit is set to “Shipment”. (The state immediately after shipment)

- All the functions and conditions are initialized.
- Clear all of tuner preset memory
- Clock initialization
- Clearing DVD memory
- Resetting DVD memory
- Initialization of DVD mechanism
- Set the DVD mechanism as above.

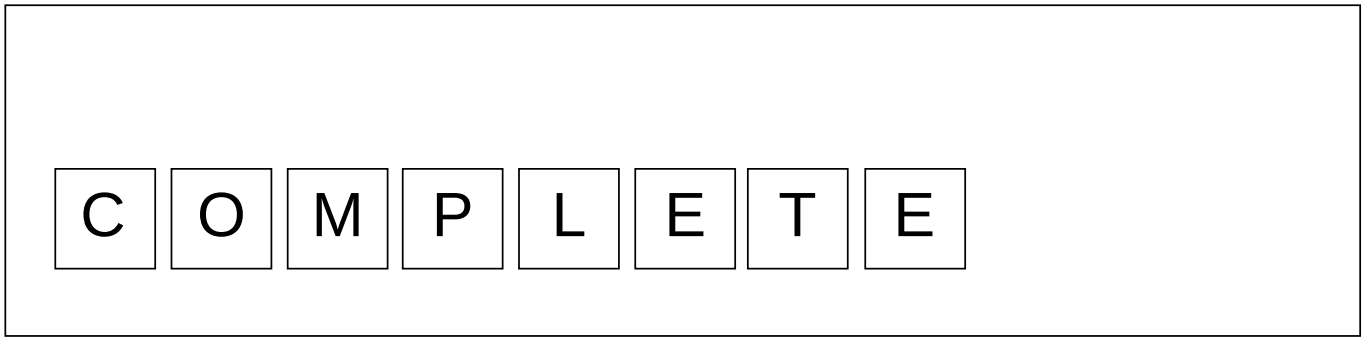
Operation: When the unit enters the shipment test mode.

1. “TEST” flashes at the top of the FL, and “INITIAL” at the bottom.
2. When initialization is complete, “COMPLETE” appears in the FL before the unit exits the test mode, and then the power is turned off. If initialization fails, “INT ERR” appears in FL, and the unit stands by until the POWER key ispressed.

"INITIAL" display



"COMPLETE" display



2. DVD Test Mode

Outline: The key code of the test mode 1 is transmitted to the DVD unit to start up the test mode. Hereafter, the system microcomputer only sends the key code to the DVD unit. Although operations of the main unit can be commenced in the same manner as the DVD/CD functions, nothing has to be controlled except for monitor output. Therefore, the sound is always mute, and the SP relay of each channel is always off, too.
As the CD cover must be kept closed with a disc inserted before entering the test mode, opening and closing operations are not required, either. (In this test mode, no opening or closing operation is required.)
The FL display shows “DVD TEST” while in the test mode, and turns off all the other segments.

Function:
1. Start up the test mode in the same manner as the DVD/CD functions, and also start the DVD unit in the normal operation. The display shows “DVD TEST” through this test mode, and turns off all the other segments.
2. All the other function may be started in the normal operation. Leave the mute ON since no sound is to be emitted, and the SP relay of each channel OFF.
3. After the DVD unit is started, the key code (F1h) of the test mode 1 is transmitted in the form of the communication data.
4. If the status data of Byte No. 24 is set to 0Fh, the system microcomputer will communicate with the DVD unit as usual. However, the communication data from the DVD unit does not have to be checked. The microcomputer accepts the only keys described in the table below, and sends the key code to the DVD unit. (No opening or closing operation is required.)
5. “COMPLETE” is displayed by pressing the POWER key, and the system microcomputer is reset and restarted to cancel this test mode.

[Acceptable keys and key codes transmitted to the unit in DVD test mode]

Key Name	Transmit Key Code		Note
	Name	HEX Value	
PLAY/PAUS	Play	26h	In the normal operation mode, Play or Pause key code is transmitted after checking the DVD status data. In test this mode, however, always Play key code is transmitted.
Stop	Stop	27h	In the normal operation mode, Stop or Open/Close key code is transmitted after checking the DVD status data. In this test mode, however, always Stop key code is transmitted.
STOP (REMOTE CONTROL)	Stop	27h	
OPEN/CLOSE	Open/Close	24h	The key code is transmitted to the DVD unit in the same manner as the normal operation, and the CD cover is controlled by the Tray Open/Close command from the DVD unit.
SKIP UP/CUE	Skip+	2Ch	In this test mode, always Skip+/Next key code is transmitted.
SKIP DOWN/REV	Skip-	2Bh	In this test mode, always Skip-Rev key code is transmitted.
P-MODE	Repeat	32h	In this test mode, always Repeat key code is transmitted.
A-B	A-B Repeat	49h	
PROGRAM	Program	20h	
CLEAR	Clear	20h	
1 key	1	01h	
2 Key	2	02h	
3 Key	3	03h	
4 Key	4	04h	
5 Key	5	05h	
6 Key	6	06h	
7 Key	7	07h	
8 Key	8	08h	
9 Key	9	09h	
0 Key	0	0Ah	
ENTER	Enter	70h	

Keys described in the table above are used in this test mode. However, even if one of the following keys for DVD is pressed, the corresponding key code will be transmitted as well:
ON SCREEN, DISPLAY, CUE, REVIEW, Cursor Up/Down/Left/Right, RETURN, ZOOM, MENU TOP-MENU, PLAY CONTROL, SUBTITLE, ANGLE, SOUND, DVD MENU, GAMMA, SUPER PICTURE, SLOW>, STILL>, DIRECT

Supplementary notes:

1. The DVD/CD cover cannot be opened or closed (loading or unloading discs) in this test mode. After loading a disc, turn the power off to enter this test mode.
2. Operations of keys unrelated to the DVD operations are not accepted except for the POWER key. Therefore, you cannot switch functions, control volume, or control DSP, etc. The controls of electronic volume IC, input selector of the A/D and D/A converter, and monitor output are fixed to the settings of the DVD/CD functions.

3. AMP Test Mode

Outline: In this test mode, all the operations except for volume control can be controlled in the same way as in the regular power on state. The function can be switched to another, and the DVD can be played as well as the AC3 and DTS multichannel playback, etc.
Only the volume control differs from the normal operation, and it can be changed among only 4 levels of 0, 1, 25, and 40.

Function:

1. After entering the test mode, start the unit as set to the VTR (VTR1) function in the same manner as the normal operation.
2. Start up the unit with the volume set to 25 (-16 dB) and the surround set to the STEREO mode. X-BASS must be turned off.
3. The volume can be increased or decreased among 4 levels of 0, 1, 25 and 40 only if the volume control key input is performed.
4. “AMP TEST” is always displayed at the bottom of the FL. It changes to the operational indication for 3 seconds only when the following operations are performed. All the controls except for the display perform the same operations.
   - The volume level is displayed when it is changed.
   - When the X-BASS key is operated, its ON/OFF status appears.
   - The frequency appears when the function is switched to TUNER.
   - The operation is displayed for the first 3 seconds when the DVD play, stop, or pause operation is performed.
   - When various errors occur. In this case, the error is always displayed until it is restored.

∗ The elapsed time during DVD/CD playback is not displayed.

Function: Audio circuit test

a) Volume levels can be set in 3 steps (low, middle and high).

Initial settings

1. Volume: step 2 (-16 dB)
2. X-BASS: OFF
3. Function: test
4. Function: VTR
5. Surround mode: STEREO

Operation
Volume levels can be controlled in 4 steps below.
Other operations are performed normally.

Step of test mode	Normal volume level	Display	Volume
0	0	0	-∞
1	1	1	-80 dB
2	25	25	-16 dB
3	40	40	0 dB

4. KEY Test Mode

Outline: This is to check that the system microcomputer properly acknowledges the key operations on the main unit.

Operation: In this test mode, the power is supplied only for the display, and all the FL indications are turned off as in the test menu mode.
Then, the indication of 8 digits that corresponds to the key identified by the system microcomputer is displayed in the FL.
When the power key is pressed, the whole FL is lit for 2 seconds before its power is turned off and the test mode is canceled.

Key	Segment
PLAY	KEY A1
STOP	KEY A2
FUNCTION	KEY A3
DGI/ANA/BAND	KEY A4

Key	Segment
OPEN/CLOSE	KEY B1
SKIP DOWN	KEY B2
SKIP UP	KEY B3
VOLUME DOWN	KEY B4
VOLUME UP	KEY B4

5. DVD/CD Lid Test Mode

Outline: The DVD/CD lid is opened and closed repeatedly and the number of repetitions is displayed in the FL. If the finger jam or time over is detected while the lid is opening or closing, the lid operations is stopped and the error indication and the number of repetitions are displayed.
Keys available in this test mode are POWER, PLAY, STOP and OPEN/CLOSE only.

Operation:
1. After entering the test mode, “TEST” is displayed at the top of the FL and “00000” at the bottom, and the unit waits until the next key operation is performed.
   If the DVD/CD lid is not closed, close it during this operation.
2. The test is commenced by pressing the OPEN/CLOSE key. The DVD/CD lid is controlled in the following procedure and the FL shows the number of open/close repetitions. The test operation is repeated until the STOP or POWER key is pressed or the error is detected.
   a. Open the DVD/CD lid until the OPEN completion is detected.
   b. When the OPEN completion is detected, stop the DVD/CD lid operation and wait for 2 seconds.
   c. After 2 seconds, close the DVD/CD lid until the CLOSE completion is detected.
   d. When the CLOSE completion is detected, stop the DVD/CD lid operation, display the counter in the FL and wait for 2 seconds.
   e. After 2 seconds, return to step a and repeat the procedure.
3. If finger jam is detected in the middle of the closing operation, or the error that the opening and closing of the lid does not complete in 5 seconds is detected, “Er ***** is displayed at the bottom of the FL, the motor is stopped, and the unit enters the stand-by mode. (***** indicates the number of repetition until the test is stopped.)
4. If the STOP key is pressed, the lid operation is stopped at that point (even in the middle of an operation). The FL indication does not change. The interrupted operation and counting resume from the same point if the OPEN/CLOSE key is pressed in this state.
5. Pressing the POWER key closes the lid if it is open, and the test mode is canceled to reset.

Supplementary note:
1. The counter continues endlessly. When it reaches the maximum value (99999), the counter returns to “00000” and continues counting.

6. DVD unit ROM write test mode

Outline: This mode is to set the microcomputer of the DVD unit to the write mode onto FLASH ROM. In this test mode, “TEST” is displayed at the top of the FL and “DVD WRITE” at the bottom. All the key operations except for the POWER key are prohibited.

Operation:
1. Set the output DVD WRITE port to “L” and the DVD +B port to “H”.
2. Other ports maintains the state at the transition to the test menu mode, and do not detect any change of input except for SYS_STOP and RESET (communication with the DVD unit is interrupted.)
3. If the power key is pressed during this operation, the test mode is canceled and the reset process is started.

7. TUNER Test Mode

Outline: Start up the unit as set to the TUNER function in the same procedure as the normal operation. Operations and indication after startup are identical with the normal operations. However, what is different is that the frequencies as shown in the table below are set to the tuner preset memory in advance.

Test mode operation:

(1) After entering the test mode, start up the unit with the tuner set to the preset No. 1 station, in the same manner as in the regular startup. When starting up, the following stations are preset which vary according to the destination.

Preset memory in the TUNER TEST mode									
P 1	P 2	P 3	P 4	P 5	P 6	P 7	P 8	P 9	P10
87.50	108.00	90.00	106.00	98.00	522 k	1,620 k	603 k	1,404 k	990 k

(2) The operation is identical with the normal operation after startup.
(3) If the POWER key is pressed, irregular data is written in the RAM check data and the microcomputer is reset. With this operation, abnormal memory is detected during the reset process, and microcomputer settings are initialized.

8. ASPM (RDS) Test Mode

Outline: This is to check the RDS ASPM function in the production line. This mode is started as set to the FM stereo function. Then the receiver frequencies between 105.00MHz and 108.00MHz are scanned, and a maximum of 3 RDS stations are stored in preset memory.

Test mode operation:

(1) When the power is turned on, this mode is started at FM stereo band 106.50 MHz of the TUNER function. At the same time, preset channels 1, 2, and 3 are set to vacant, and FM stereo 87.50 MHz is stored to ch4 – ch40.
(2) The receiver frequencies are scanned from 105.00 MHz with the ASPM key, and the ASPM operation begins.
(3) If an RDS station is received, it is stored in memory from ch1 in order. (In the ASPM test mode, PS names do not have to be memorized. When switching channels, the frequency is displayed at the head.)
(4) Scanning stops when 108.00 MHz is reached and the unit resumes to receive FM stereo 106.50 MHz.
(5) The channel numbers and frequencies are displayed in the FL from channel 1 to channel 3 in order as the confirmation display of the memory, after which FM stereo 106.50 MHz reappears. (This can be displayed in the same method as the normal tuner display.)
(6) If the ASPM key is pressed again, repeat steps (2) – (5).
(7) Scanning stops where the 3 stations are stored in memory. Perform steps (4) and (5).
(8) Even if the ASPM key is pressed later, its operation will not start. Instead, "___END___" is displayed for 1 second and the initial indication appears.

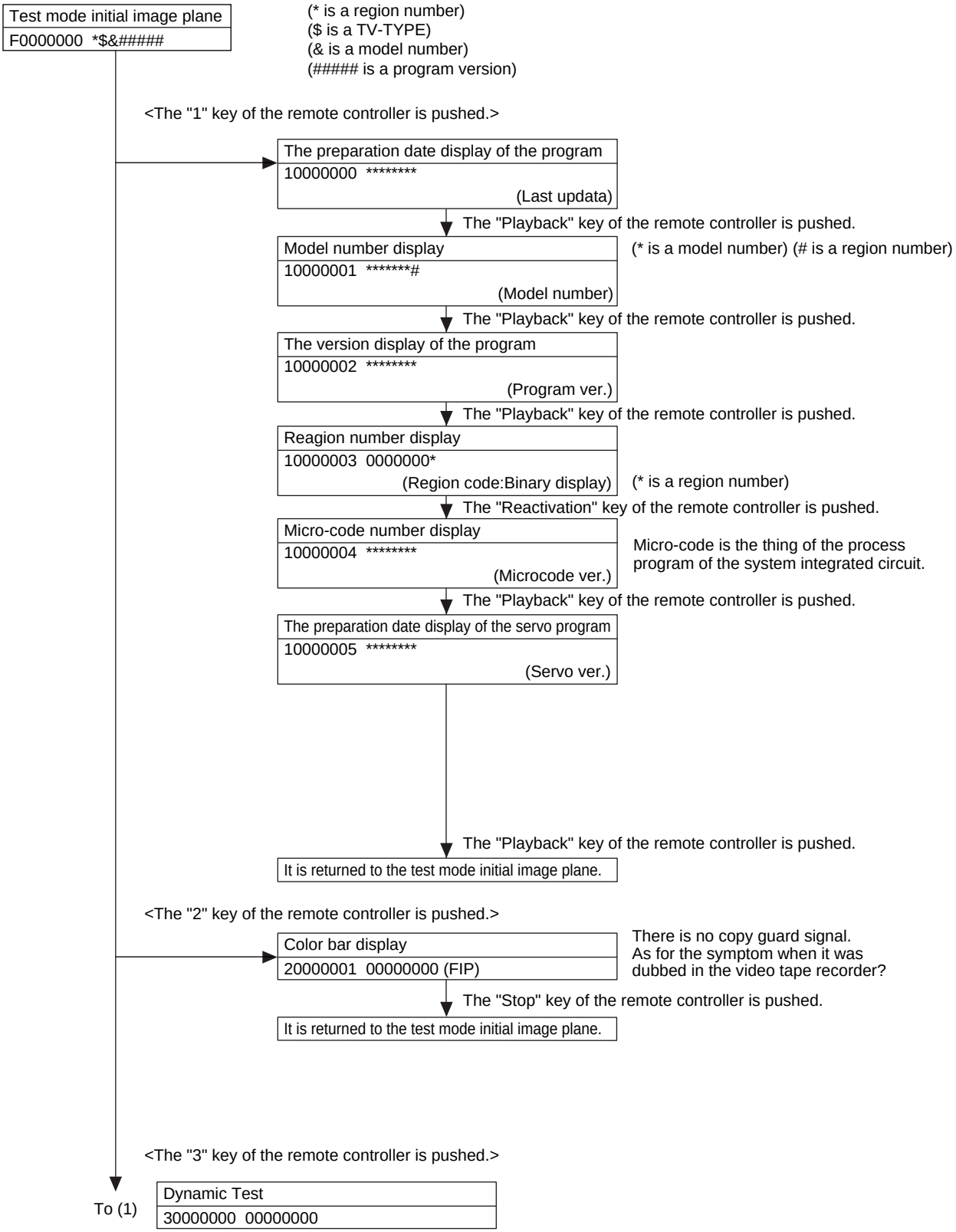
Supplementary notes:

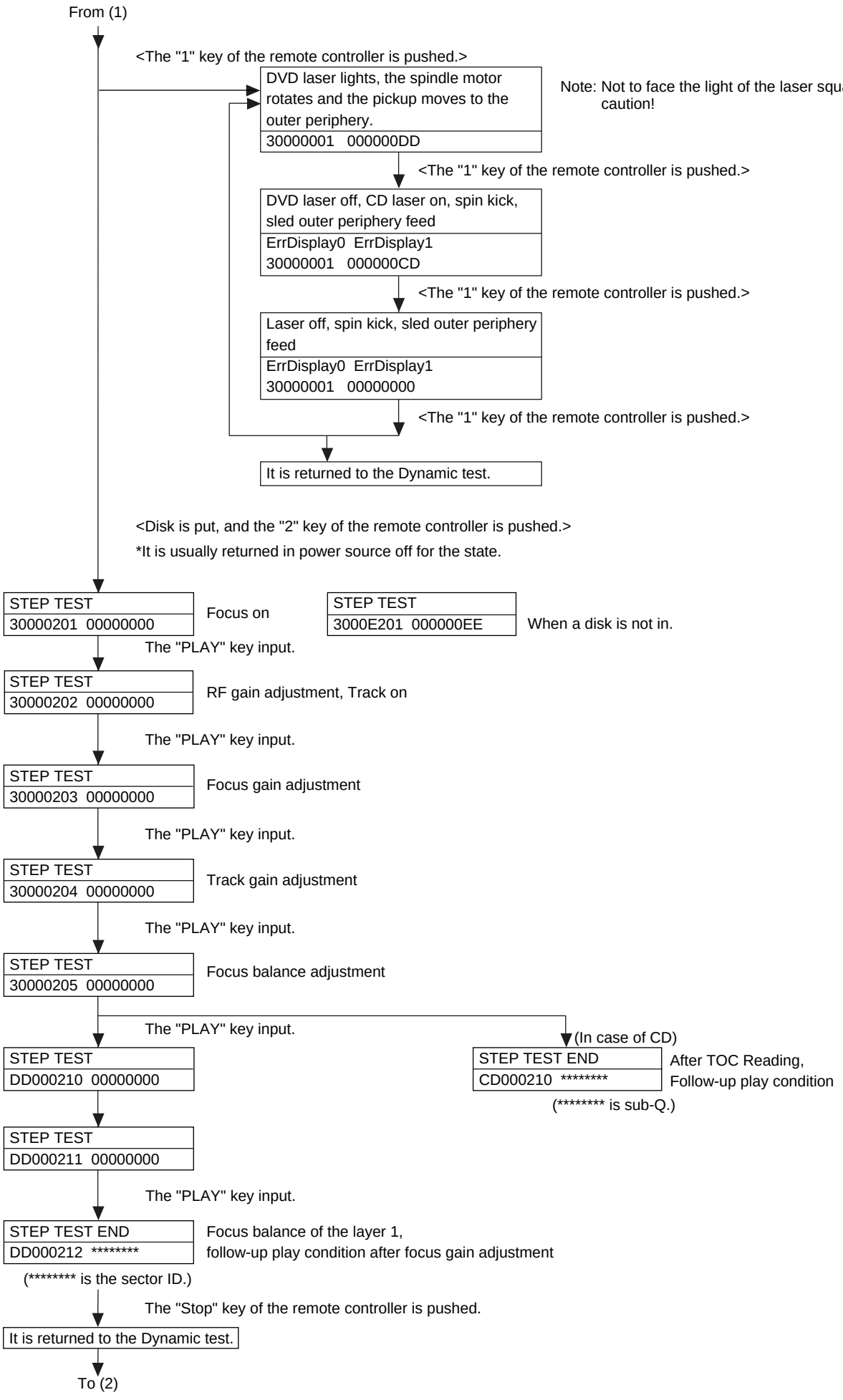
(1) Operations that are not explained above are to be the same as the normal ASPM operation. Therefore, in the first scan, only the station with the strongest electric intensity among those with the same PI code is stored in memory, and no other station is memorized. In the second scan or later, the station that is previously stored in memory and has the same frequency will not be memorized again. However, if other stations have the same PI code but different frequencies, the one with the strongest electric intensity is memorized. At that time, the electric intensity of the memorized station is ignored. By repeating scanning 3 times, 3 stations with the strongest electric intensity may be stored in memory, even if they have the same PI code.
(2) If the POWER key is pressed, irregular data is written in the RAM check data and the microcomputer is reset. With this operation, abnormal memory is detected during the reset process, and the microcomputer settings are initialized.

SD-SH111H

DVD TEST MODE

- DVD TEST MODE
- DVD ROM RENEWAL MODE




From (1)
<The "1" key of the remote controller is pushed.>
DVD laser lights, the spindle motor rotates and the pickup moves to the outer periphery.
30000001 000000DD
Note: Not to face the light of the laser squarely, caution!
<The "1" key of the remote controller is pushed.>
DVD laser off, CD laser on, spin kick, sled outer periphery feed
ErrDisplay0 ErrDisplay1
30000001 000000CD
<The "1" key of the remote controller is pushed.>
Laser off, spin kick, sled outer periphery feed
ErrDisplay0 ErrDisplay1
30000001 00000000
<The "1" key of the remote controller is pushed.>
It is returned to the Dynamic test.
<Disk is put, and the "2" key of the remote controller is pushed.>
*It is usually returned in power source off for the state.
STEP TEST
30000201 00000000
Focus on
STEP TEST
3000E201 000000EE
When a disk is not in.
The "PLAY" key input.
STEP TEST
30000202 00000000
RF gain adjustment, Track on
The "PLAY" key input.
STEP TEST
30000203 00000000
Focus gain adjustment
The "PLAY" key input.
STEP TEST
30000204 00000000
Track gain adjustment
The "PLAY" key input.
STEP TEST
30000205 00000000
Focus balance adjustment
The "PLAY" key input.
(In case of CD)
STEP TEST
DD000210 00000000
STEP TEST END
CD000210 ********
After TOC Reading,
Follow-up play condition
(******** is sub-Q.)
STEP TEST
DD000211 00000000
The "PLAY" key input.
STEP TEST END
DD000212 ********
Focus balance of the layer 1,
follow-up play condition after focus gain adjustment
(******** is the sector ID.)
The "Stop" key of the remote controller is pushed.
It is returned to the Dynamic test.
To (2)

From (2)

Following playback, jump test mode

"3" Key input

PLAY TEST
30000001 00000000

Because a tray opens, adisk is published.

"3" Key input

PLAY TEST
DD######*********

It becomes following play state.
(******** is a sector ID.)(###### is a error rate)

AA BB CC DD EE FF GG HH
Error rate lever ver
1ber=5error

Auto adj value display
AA: Layer0 foeus gain
BB: Layer1 foeus gain
CC: Layer0 foeus balance
DD: Layer1 foeus balance
EE: Tracking gain
FF: Tracking balance
GG: Layer0 RF gain
HH: Layer1RF gain

A test jump can be done by inputting the following key from the remote controller.

Key	Jump	Key	Jump
1	-1	3	1
4	-102	6	102
7	-510	9	510
Clear	-511	Enter	511
2	-765	Play Mode	765
5	-766	A-B	766
8	-7000	Program	7000
Before skipping.	-15000	After skipping.	15000

The"Stop" key of the remote controller is pushed.

It is returned to the Dynamic tes.

Spin offset adjustment mode

"TOP MENU" Key input

SPIN OFFSET

PLAY TEST
00000000 0000*****

(**** is a adjustment result.)

1. Version upgrade procedure

This unit can overwrite the program inside via the dedicated cable, using the special software from PC. As this program and the program of the drive ass'y need to be matched when replacing the drive ass'y, upgrade the firmware of this unit by following the procedures below.

Procedures and the program version have to be changed according to the contents of service. Upgrade based on the service information issued occasionally.

* The drive number is written on the label on each package.

Note: After version upgrade, the system must be reset, which deletes all user data in the memory. Be sure to get permission from the user in advance.

DVD UNIT DOWNLOAD PROCEDURES

1. Connection
   (1) Remove the screw for the connector cover on the back of the unit and connect the cable (QCNWK0001AWZZ) to the connector.
   (2) Connect the unit to the PC via the RS-232C level converter.

Connection diagram

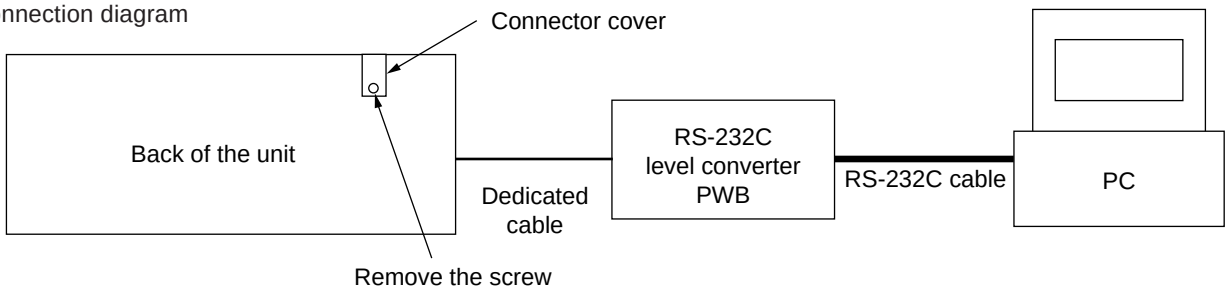


Figure 21-1

2. How to Download

1. Conect the download tool (004 941 0034 [RUNTK0808GEZZ] : RS-232C Level Converter and QCNWK0001AWZZ: connection adapter) to your PC's COM1 port.

2. Execute "download.exe"

3. Connect service tool to jack of set.
   Remove the screw for the connector cover on the back of the unit and connect the cable (QCNWK0001AWZZ) to the connector.

4. Input 1(Start)by a menu of Download.exe.

```
Downloader
1. Start
2. End
  Select = _
```

Preparation of the DVD set

(1) While pressing down the PLAY and VOLUME UP keys simultaneously, press the POWER key to enter the TEST MODE.

"Ver. ****" appears.

(2) After selecting "DVD ROM" using the VOLUME UP/ DOWN key, press the PLAY key or "6" key on the remote control "DVD WRITE" appears.

* : it goes into the DVD ROM WRITE TEST, in more than 5-second for 30-second within, on the personal computer side. If the next data transfer mode "the operation of 5" isn't manipulated, because it isn't written normally. Be careful.

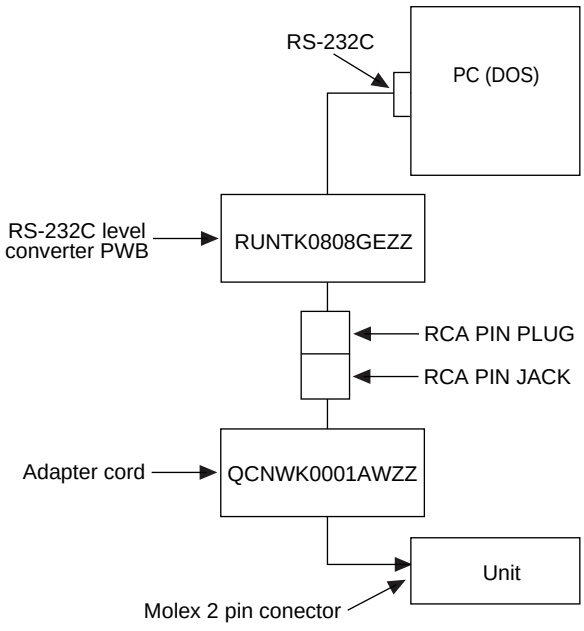


Figure 21-2

5. Input "Enter" if heard it with Soft-ware Updata Start?

```
Update File    =  ******

Soft-ware Update Start ? :
Start          > [Enter]
Exit           > [ESC]
Wait Change    > [W]
```

6. When data transmission is started, PC side shows "%" indication.

```
Update File    =  ******

Soft-ware Up Date (CANCEL Push ESC)
  **  %_
```

7. When a download is successful, 100% is indicated in PC side. When this indication doesn't appear, stop with [ESC] key and cut off a set,and repeat a download from setp5. Version confirming procedures. Connect this unit to the TV monitor and check the version number on the TV screen in the DVD TEST MODE. If the new version number is displayed, the operation is completed.

DVD TEST MODE

A POWER key is pushed, and POWER should be turned off.

(1) While pressing down the PLAY and VOLUME UP keys simultaneously, press the POWER key to enter the TEST MODE.

"Ver. ****" appears.

(2) After selecting "DVD" using the VOLUME UP/DOWN key, press the PLAY key or "2" key on the remote control. "DVD TEST" appears.

With the number of the part **** of the program file name ####****##.exe. It confirms that the version number of TV screen corresponds.
If the old version number is displayed, stop with [ESC] key and cut off a set, and repeat a download from setp 5.

TV screen ****: Ver No.

```
DVD  TEST  MODE

F00000000        ###****#
```

8. In a normal end, cut a power supply of the set side after avoiding the tool.

9. Input "ESC" if heard it with Cpntinue / Cancel ?

```
Update File    =  ******

Soft-ware Up Date  (CANCEL Push ESC)
 100 %

Continue  –> Push Anykey
Cancel    –> Push ESC
```

10. Input "ESC" if heard it with Soft-ware Updata Start?

```
Update File    =  ******

Soft-ware Update Start ? :
Start          > [Enter]
Exit           > [ESC]
Wait Change    > [W]
```

11. Input "y" if heard it with Exit (Y/N)?

```
Update File    =  ******

Soft-ware Update Start ? : Exit
Start          > [Enter]
Exit           > [ESC]
Wait Change    > [W]

Exit? (Y/N)  Y
```

12. Input "y" if heard it with Exit (Y/N)?

```
Update File    =  ******

Soft-ware Update Start ? : Exit
Start          > [Enter]
Exit           > [ESC]
Wait Change    > [W]

Exit? (Y/N)  Y

 Program Exit

C: ¥DOWNLOAD>
```

DESCRIPTION OF AND HOW TO AVOID ERROR AND ABNORMALITY INDICATIONS

Error	Cause	Preventive measure
NO DISC	• A disc is not loaded. • The disc cannot be recognized due to scratches or dirt. • The disc is loaded upside down.	Press the Open/Close key to open the cover and load a disc. Clean the disc. Load the disc in a proper direction.
NO PLAY	• Unplayable disc • The disc cannot be played correctly due to scratches or dirt. • The disc does not satisfy the standards.	Load a playable disc. Clean the disc.
READ err	• Unplayable disc • Data cannot be read since the disc is scratched or dirty. • The disc does not satisfy the standards.	Load a playable disc. Clean the disc.
Er-CD01	• The pick position detection switch of CD/DVD mechanism does not work (defective mechanism).	Set the unit to the stand-by mode and turn it on again. If it does not restore the unit, have it repaired at the dealer you purchased it from.
Er-CD30	• The DVD unit and microcomputer do not communicate properly. • The DVD unit is defective. • The unit is used where external noise is picked up. • The power supply picks up noise.	• Move the unit away from the noise source if located near. • Use another AC outlet. • Set the unit to the stand-by mode and turn it on again. If it does not restore the unit, have it repaired at the dealer you purchased it from.
DSP NG	DSP malfunction • The unit is used where external noise is picked up. • The power supply picks up noise.	• Move the unit away from the noise source if located near. • Use another AC outlet. • Set the unit to the stand-by mode and turn it on again. If it does not restore the unit, have it repaired by the dealer you purchased it from.
No Signal	• Signals are not sent to the external digital input socket (optical). • Signals input to the external digital input socket (optical) have unplayable formats.	Check the connection and signals at the external digital input socket (optical).
TEMP	• The temperature of the power supply is too high.	Before use, set the unit to the stand-by mode and wait for a while. If this occurs frequency, have it repaired by the dealer you purchased it from.
Er-AP02	Amplifier is defective	Set the unit to the stand-by mode and turn it on again. If it does not restore the unit, have it repaired by the dealer you purchased it from.
Er-AP03	Amplifier is defective (A/D reset monitor detects an error.)	Set the unit to the stand-by mode and turn it on again. If it does not restore the unit, have it repaired by the dealer you purchased it from.
Er-AP14	ICs of A/D and D/A converters cannot communicate properly.	• Move the unit away from the noise source if located near. • Use another AC outlet. • Set the unit to the stand-by mode and turn it on again. If it does not restore the unit, have it repaired by the dealer you purchased it from.

DESCRIPTION OF CIRCUIT FOR 1-BIT UNIT (SEE THE WIRING DIAGRAMS ON PAGES 76 AND 77.)

Input

Signals over certain level input from BIA106 are sliced into waveforms by RA173 (RA174), DA126, and DA127 (DA128, DA129). The slice levels depend on the output of the unit.
In case of 25 W output setting, the level is set to gain distortion of approx. 10 % during output.
The level on the positive side is determined by RA175, RA177 and RA179 and that on the negative side by RA176, RA178 and RA180, respectively.
After DC cut by CA108, the signals are input to AD conversion IC.

$\Delta\Sigma$ modulation 1-bit conversion

The signals input to the AD conversion IC are converted into 1-bit signals for differential output.
For detailed technical description of 1-bit signal conversion, refer the technical manual for SM-SX100 already published.

Dead time and level shift

When the 1-bit signals are output from the AD conversion IC, the leading edge of the waveform is delayed for 20 to 25 nsec by DA103 (DA102, DA101 and DA100), RA115 (RA114, RA113 and RA112), and CA155 (CA154, CA153 and CA152), compared with the trailing edge.
As mentioned below, this operation is for reducing switching circuit loss in the final stage.
The signals are input to the buffer IC (AND gate IC) for the waveform format and are output.
Then the DC level is shifted by CA115 (CA114, CA113 and CA112), DA107 (DA106, DA105 and DA104) and RA120 (RA119, RA118 and RA117). This is because the buffer IC operates between ground and + 5 V, while the next stage IC, gate driver (ICA101 to ICA104), operates between the negative power source and + 9 V.
The shift quantity is output with amplitude of 5 V, based on the voltage raised by DA108 and DA109 from the bottom by approx. 2 V.

Low-pass filter circuit

1-bit signals switched at output IC are converted into analog signals via the low-pass filter consisting of LA100 (LA102, LA104 and LA106) and CA142 (CA143, CA150 and CA151).
Property of the low-pass filter is flat up to 20 kHz and then is attenuated by approx. 3 dB at around 40 kHz.

Dynamic feedback circuit

1-bit signals switched at output IC of output stage are amplified between the positive and negative power sources.
With resistance divided, 1-bit signals are fed back to AD conversion IC, via NF resistance 75 kohms.
P-P voltage, which becomes approx. 5 V, is determined by the regulation property of the transformer depending on the output level.

TO CHECK AND CANCEL PROTECT CIRCUIT DETECTION LINE

1. After power supply, the microcomputer (IC301) built in this model consecutively monitors the following errors. If any error occurs, 'Er_AP00' is displayed and all power supply except for the one to drive the microcomputer is interrupted.
   ① Abnormal output voltage drop of each regulator (below approx. 3 V)
   ② Excessive output offset of 1-bit amplifier (over approx. 2 V of DC potential)
   ③ Excessive main supply current of 1-bit amplifier (over DC approx. 5.5 A)
   ④ Abnormalities of cooling fan motor and its driving circuit (stop, etc.)

2. Criteria for judging errors of built-in microcomputer and checking/cancelling detection line
   Condition: The voltage of microcomputer pin 91 (PROTECT) lowering below 2.0 V is regarded as an error.
   (In the demonstration mode to stop cooling fan, the voltage of 1.2 V is regarded as an error.)

Checking/Cancelling

Caution: When interrupting the PROTECT detection line, the microcomputer does not operate protectively. In case of an error caused by output short-circuit of each regulator, components and board on the spot may be burnt. Do not interrupt the PROTECT detection line of the microcomputer, if any cause other than the above mentioned is not identified.
(For approx. 0.5 seconds after error detection, power is supplied; power supply can be checked with an oscilloscope, etc. As leading and trailing edges of the voltage are so steep that the power supply cannot be checked by the tester.)

① Abnormal output voltage drop of each regulator

Connect the measuring apparatus (oscilloscope, etc.) to the stabilized output of the regulator to turn on the unit power switch. If the stabilized output is far smaller (below approx. 3 V) than that shown in the circuit diagram, the regulator and the circuit to be supplied with the power may be defective.

② Excessive output offset of 1-bit amplifier

After disconnecting the CNP705, CNP706 and CNP707 (speaker output connector of 1-bit amplifier), turn on the unit power for the normal operation. (No sound is heard from the speaker.)

* After repairing, adjust the output offset voltage of 1-bit amplifier as shown on page 11.
  If the protective operation is observed even after disconnecting the CNP705, CNP706 and CNP707, circuits Q721 to 732 (DC voltage detection of speaker output) may be defective.

③ Excessive main supply current of 1-bit amplifier

After disconnecting the CNPE01, CNPE02 and CNPE03 (main power source connector of 1-bit amplifier), turn on the unit power for the normal operation. (No sound is heard from the speaker.)

* After repairing, adjust the output offset voltage of 1-bit amplifier as shown in page 11.
  If the protective operation is observed even after disconnecting the CNPE01, CNPE02 and CNPE03, the circuit of Q712 to Q717 and IC701 (supply current detection circuit) may be defective.

④ Abnormalities of cooling fan motor and its driving circuit (stop, etc.)

Turn on the unit to visually inspect the cooling fan motor till the protective operation starts.

* If the fan is rotating forcefully;
  Q520, contact of the CNP505 (connector for fan motor), or fan may be defective. (CNP505 pin 3 potential during normal fan operation is approx. 0 V.)

* When the fan is not rotating or seems to be stopping.
  If it is checked that the CNP505 (connector for fan motor) is not defective and it is also checked by oscilloscope, etc that voltage of pin 1 (red line of fan) is approx. 6 V, the fan may be defective.

  When the voltage of the CNP505 pin (1) is far lower than 6 V, and base voltage of Q521 is almost the same as that shown in the circuit diagram, the fan or the circuit consisting of P501and Q523 may be defective.

  When the base voltage of Q523 is 0 V or extremely lower than the value shown in the circuit diagram (3.5 V), the system control terminal of Q522 may be defective.

WIRING DIAGRAM

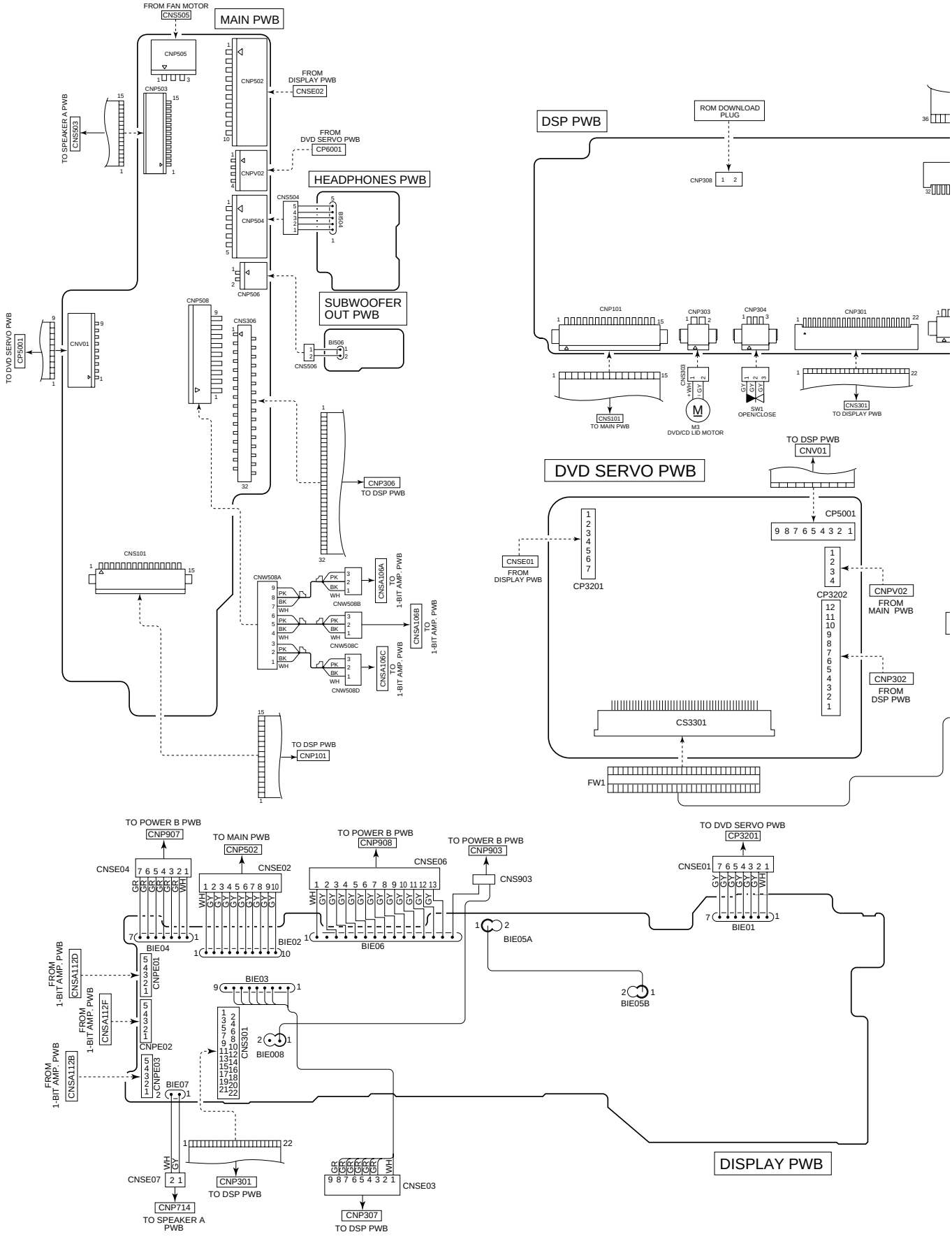


Figure 26 WIRINGDIAGRAM (1/2)

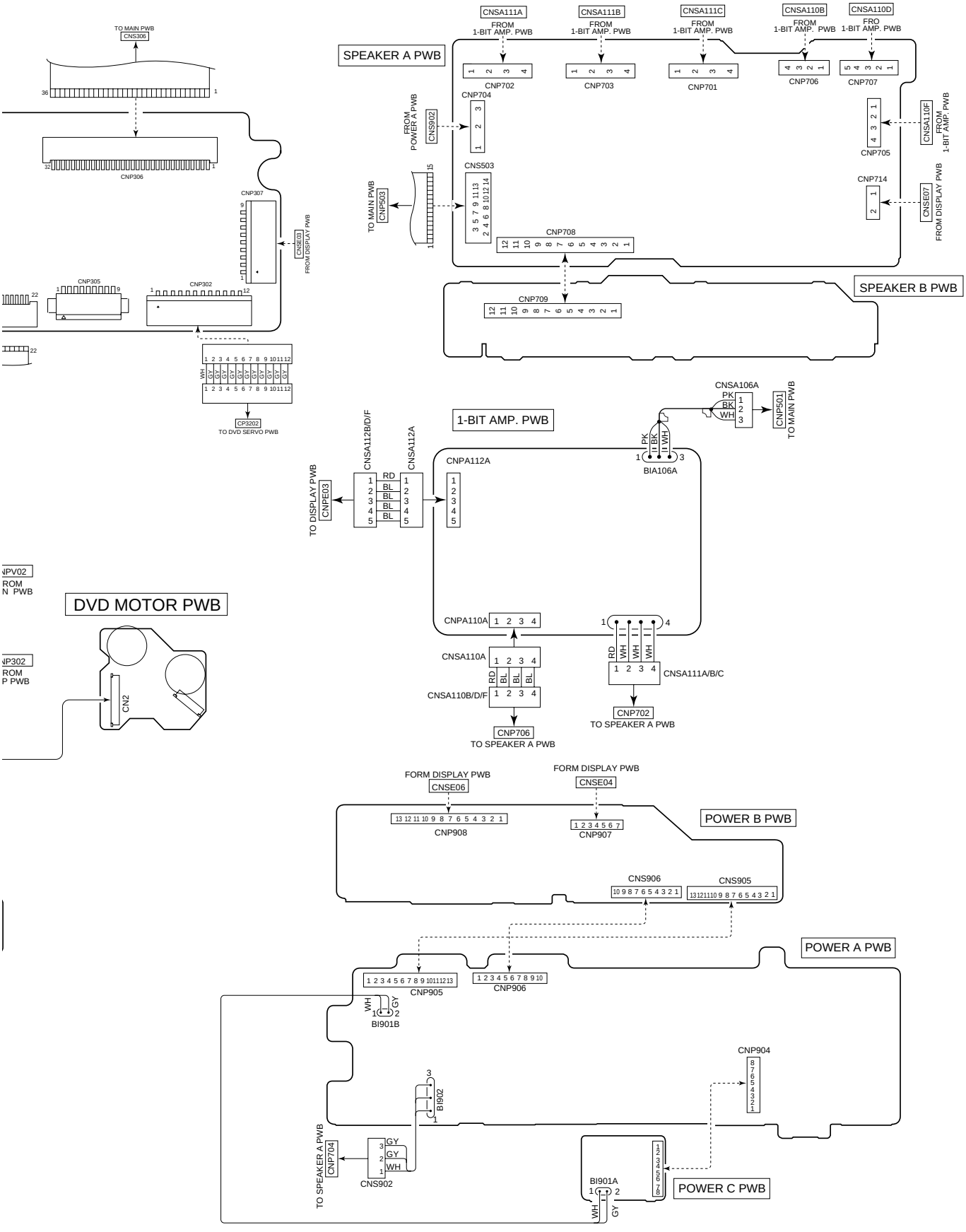


Figure 27 WIRIN DIAGRAM (2/2)

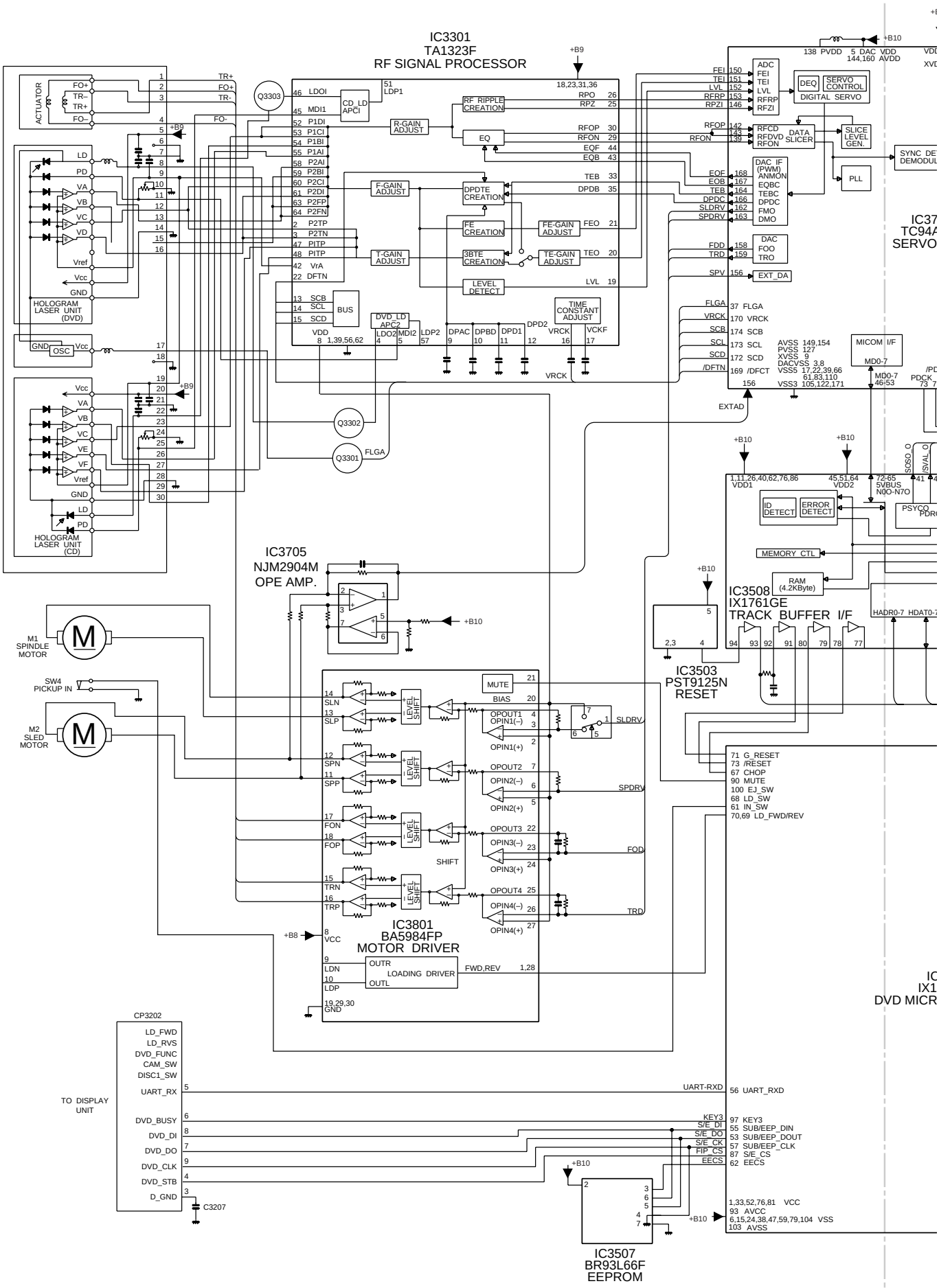


Figure 28 BLOCK DIAGRAM (1/17)

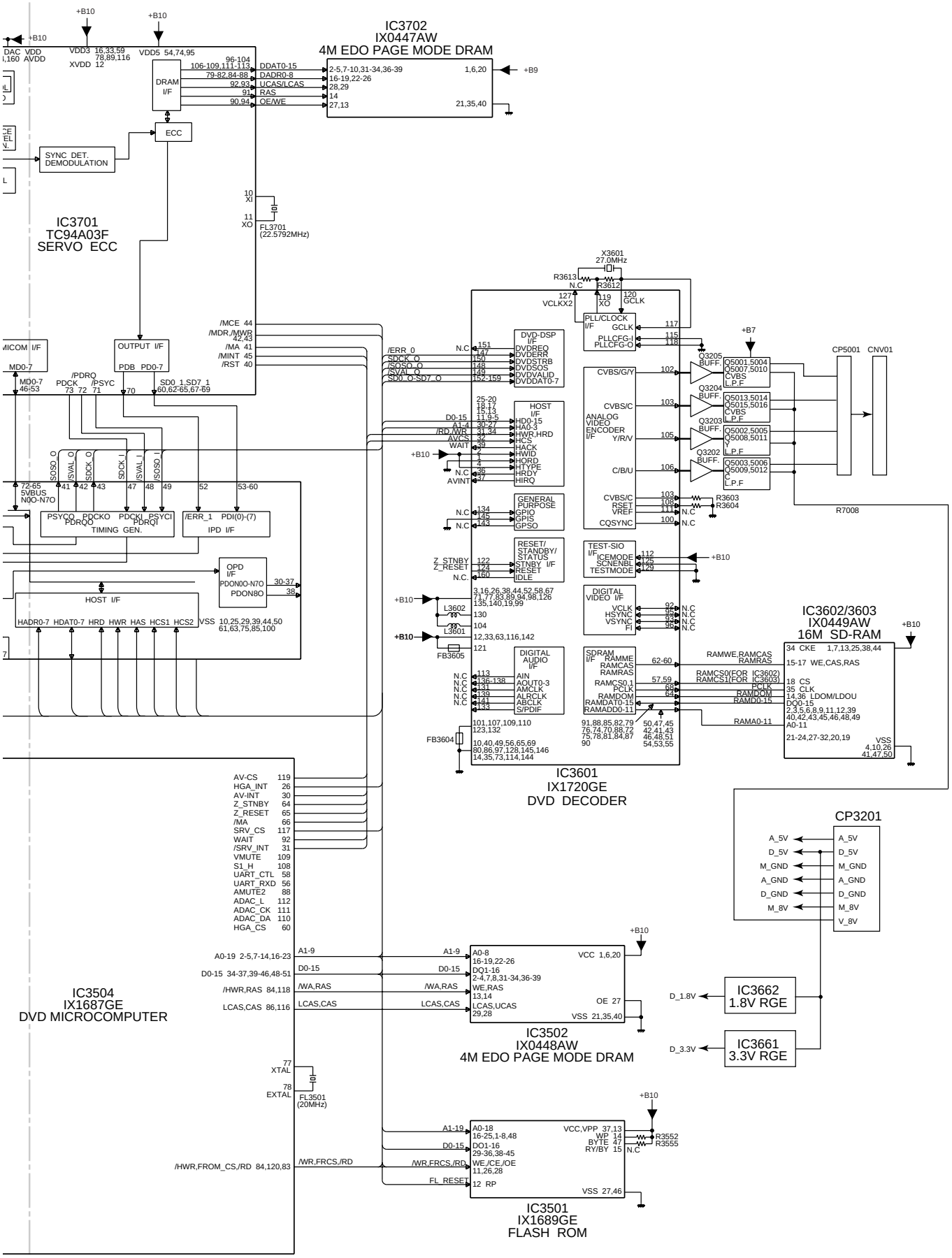


Figure 29 BLOCK DIAGRAM (2/17)

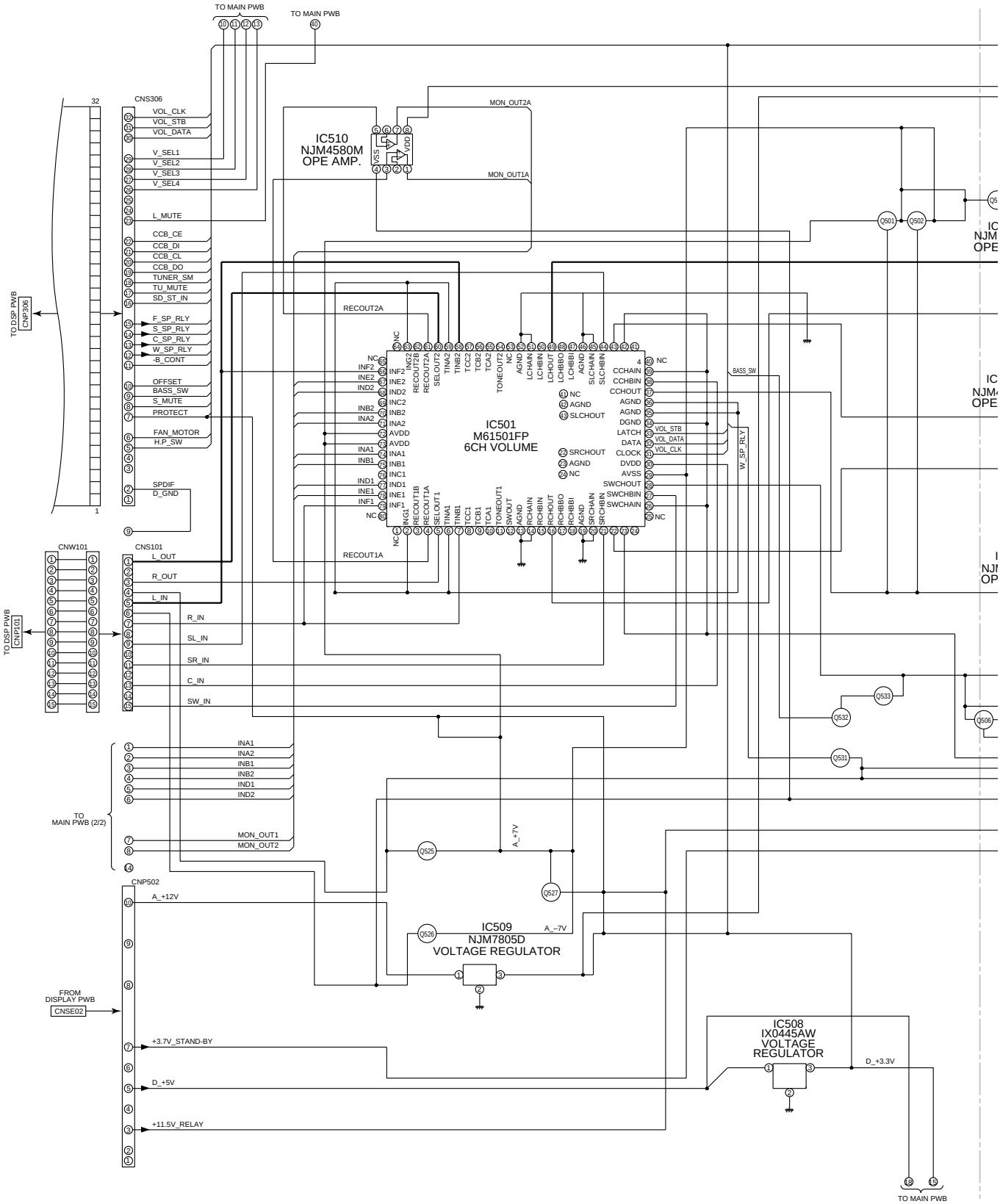


Figure 30 BLOCK DIAGRAM (3/17)

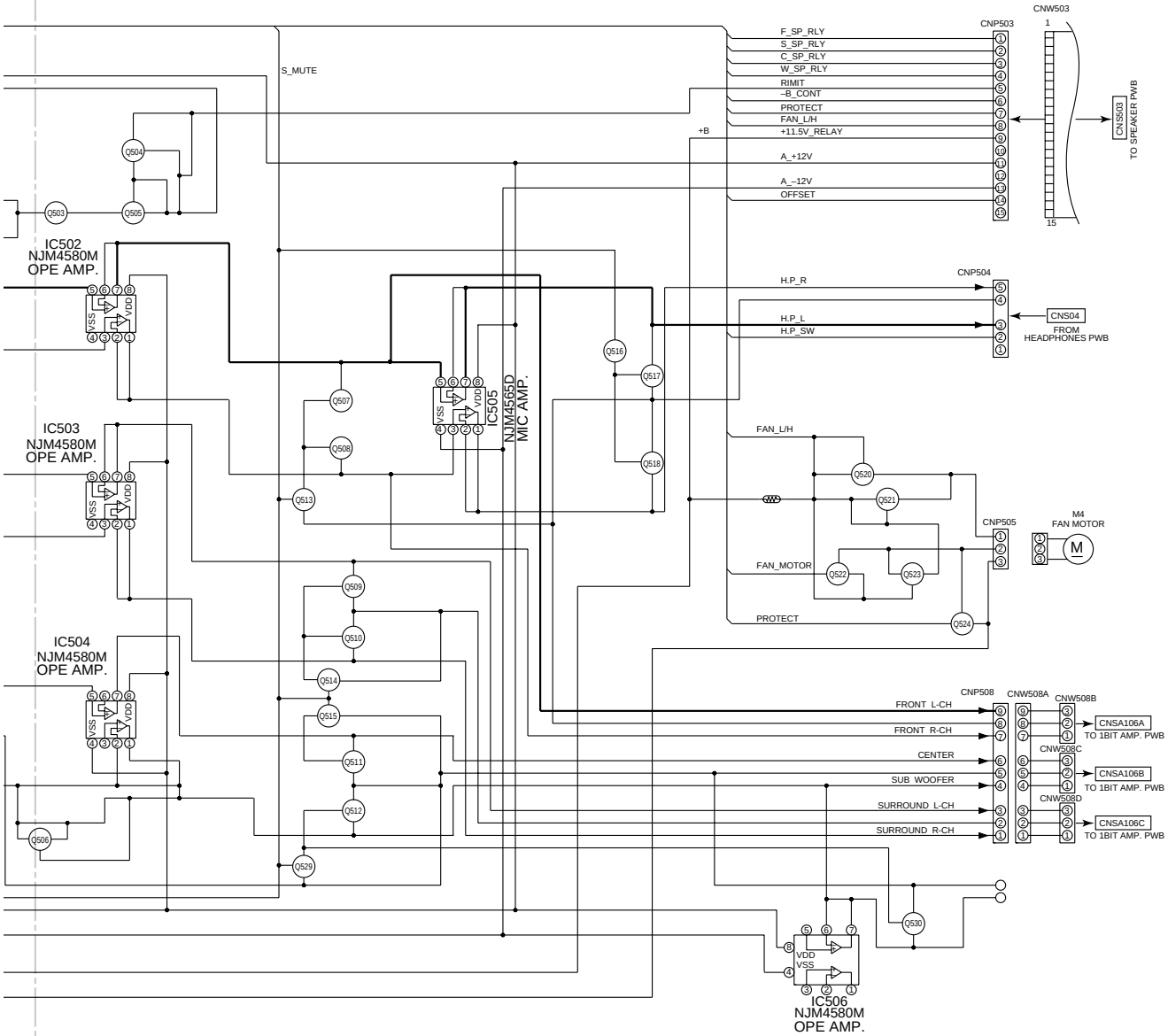


Figure 31 BLOCK DIAGRAM (4/17)

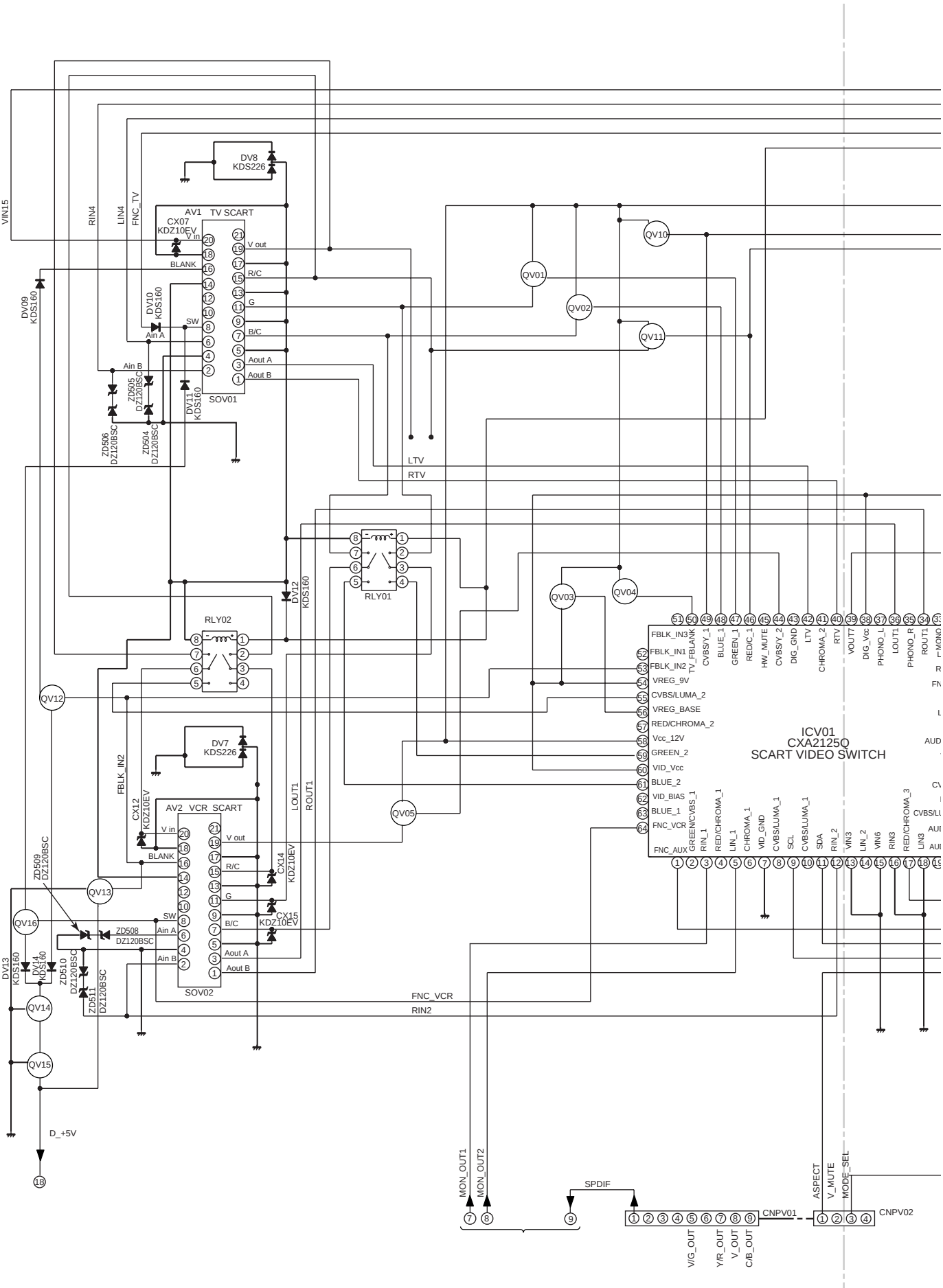


Figure 32 BLOCK DIAGRAM (5/17)

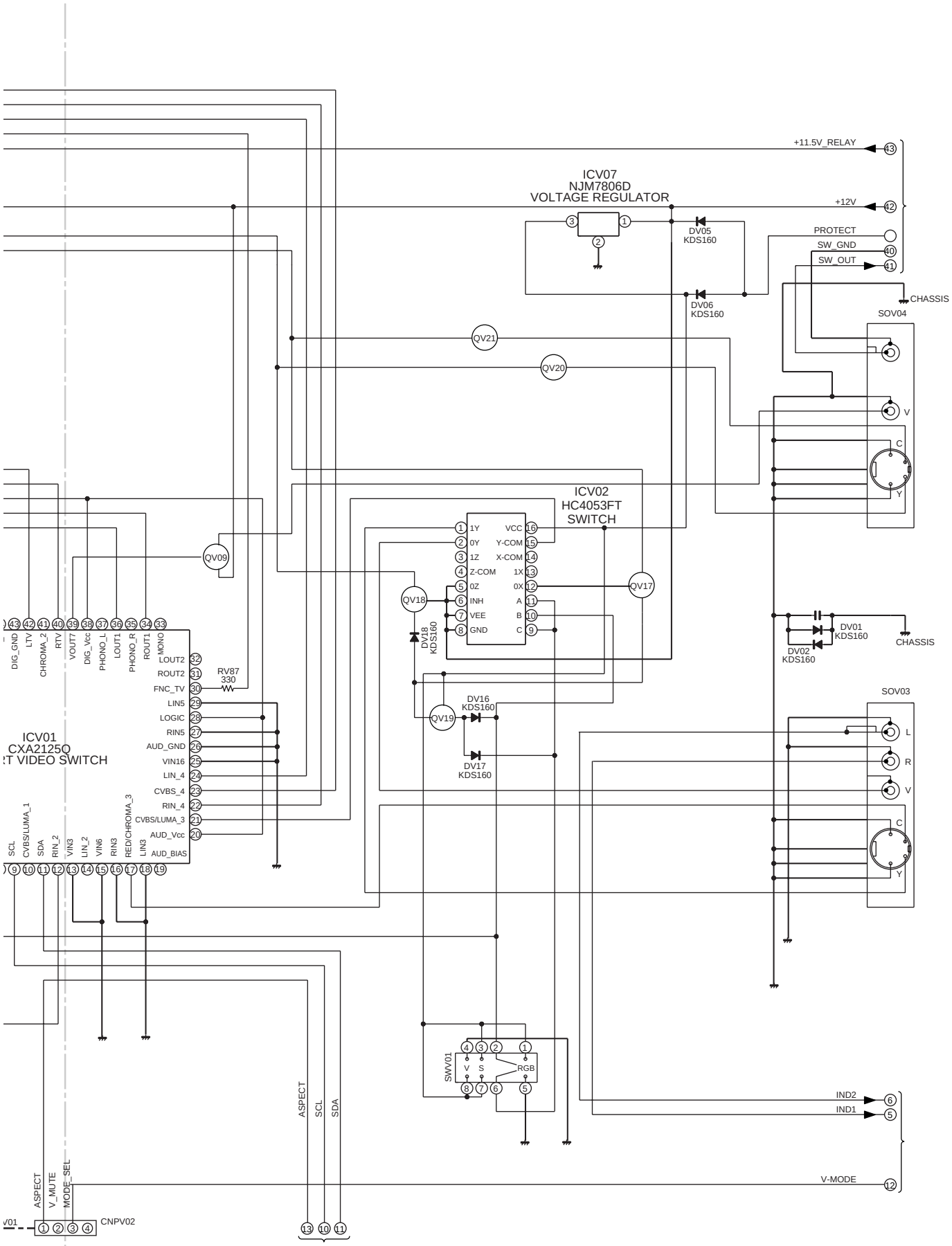


Figure 33 BLOCK DIAGRAM (6/17)

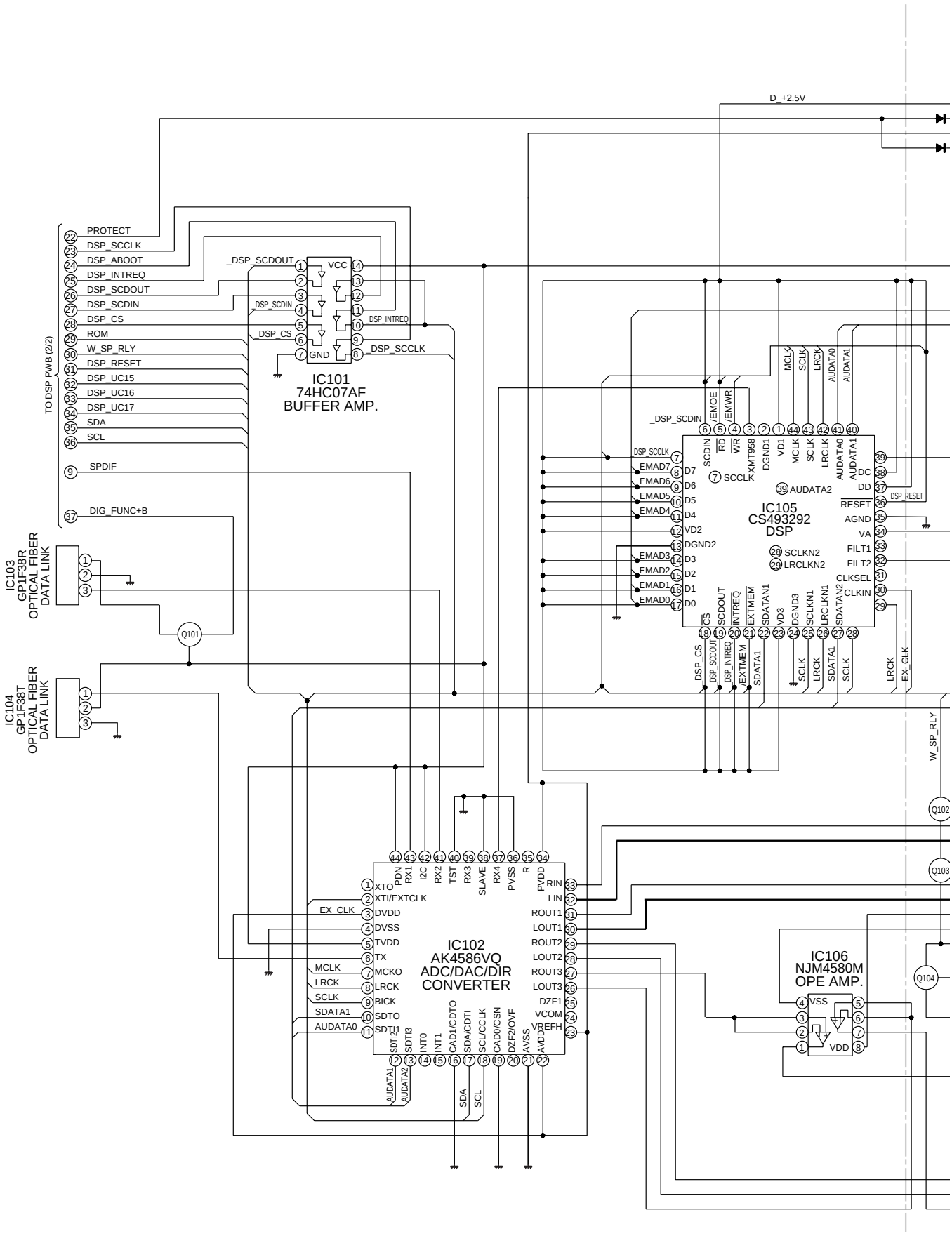


Figure 34 BLOCK DIAGRAM (7/17)

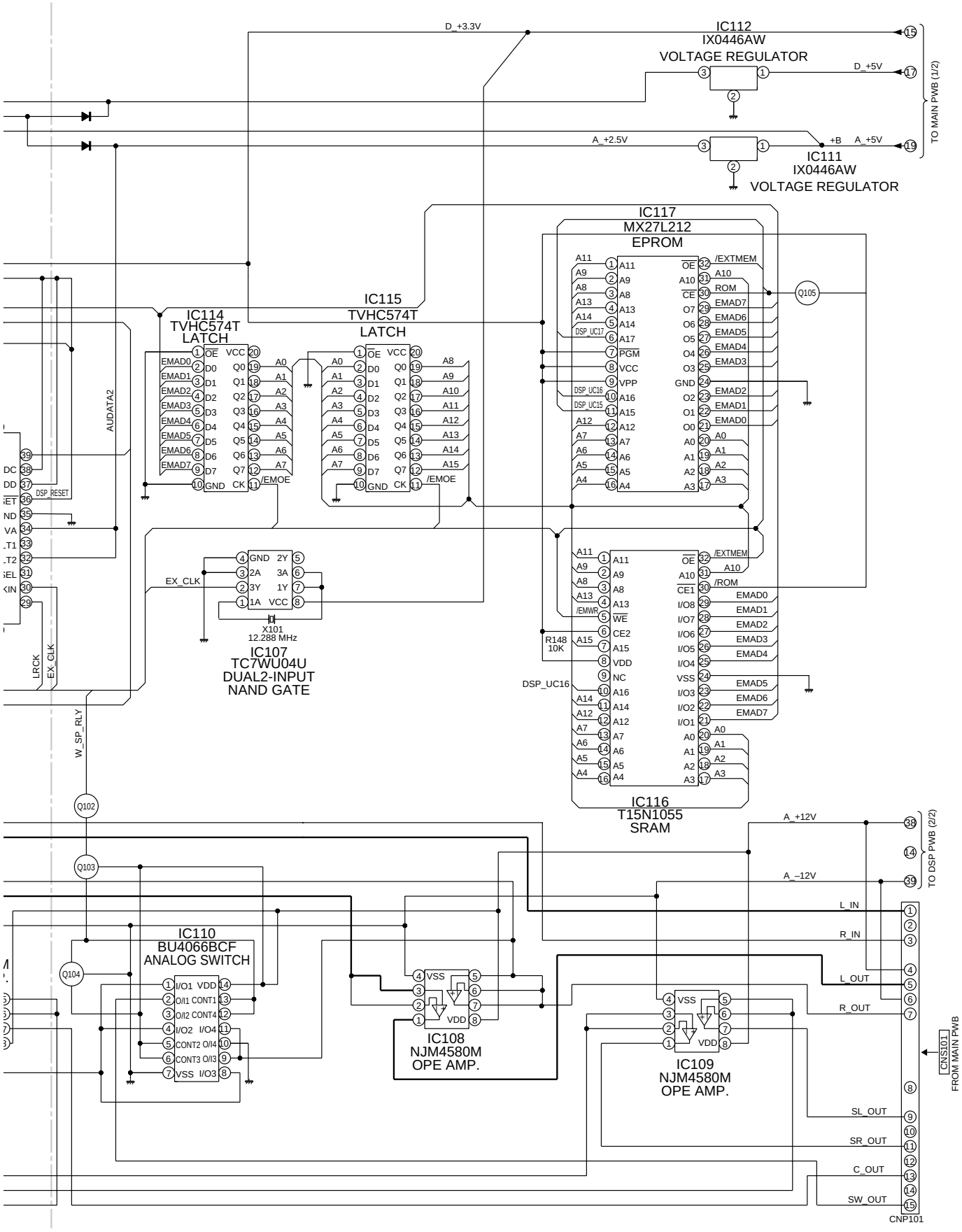


Figure 35 BLOCK DIAGRAM (8/17)

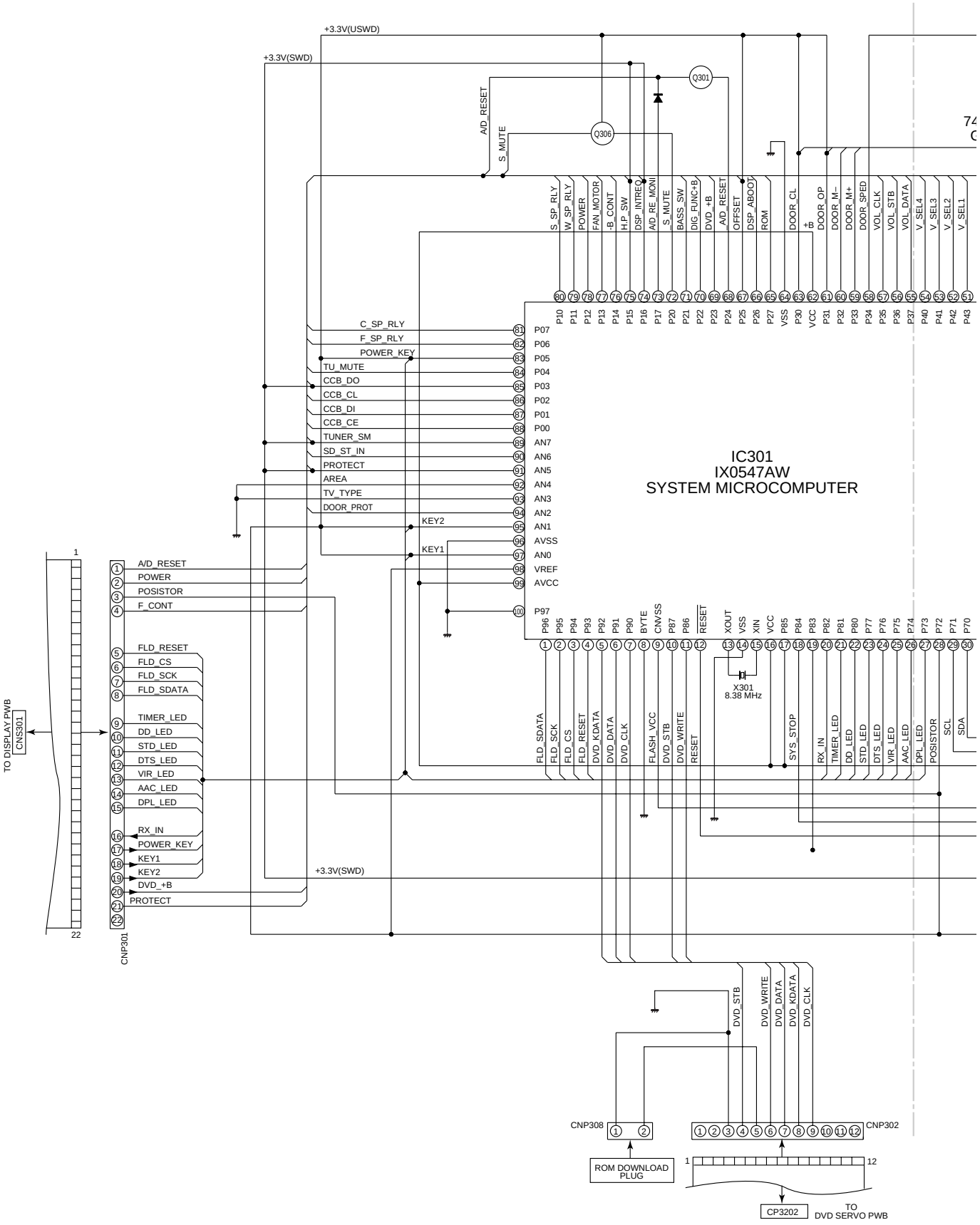


Figure 36 BLOCK DIAGRAM (9/17)

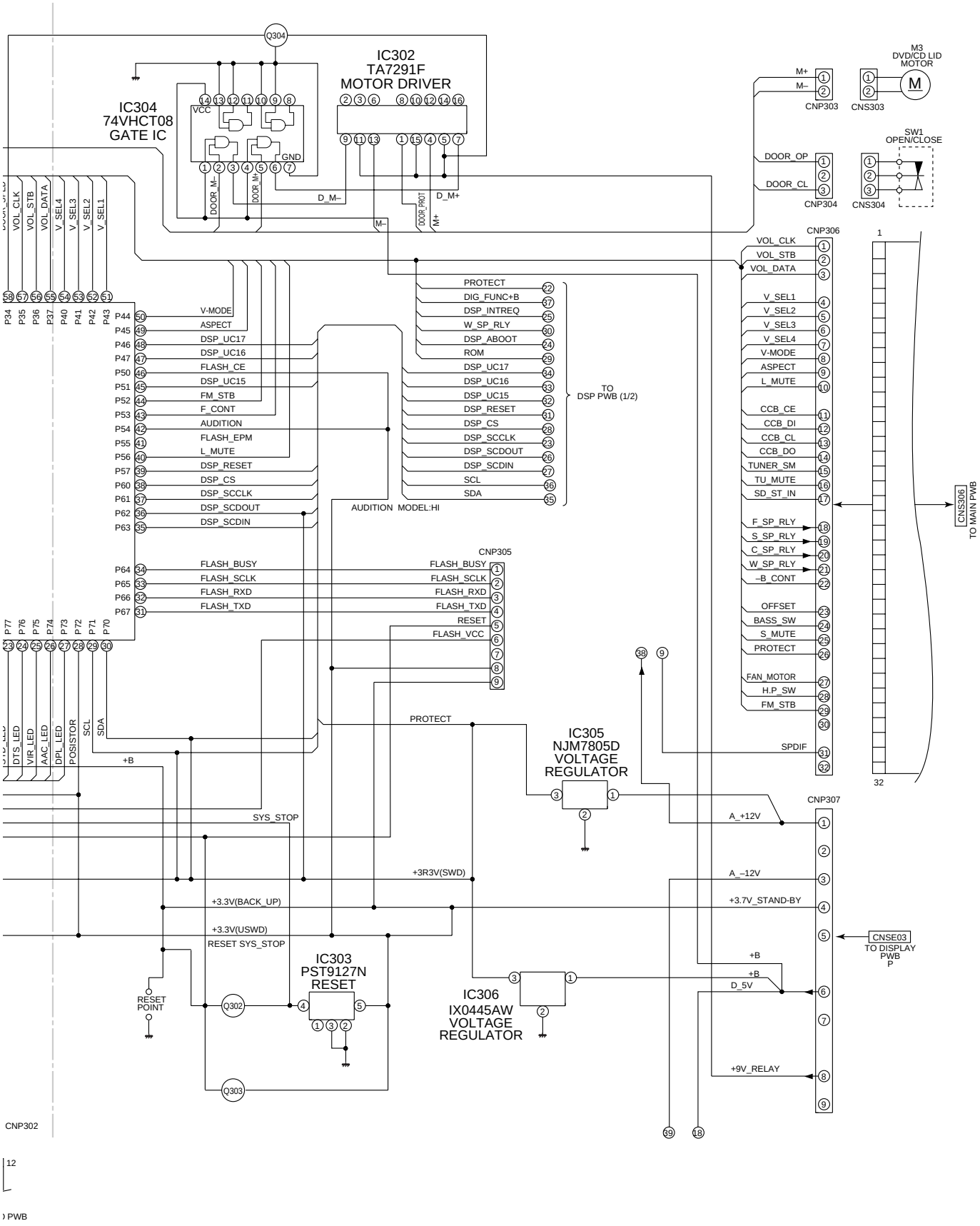


Figure 37 BLOCK DIAGRAM (10/17)

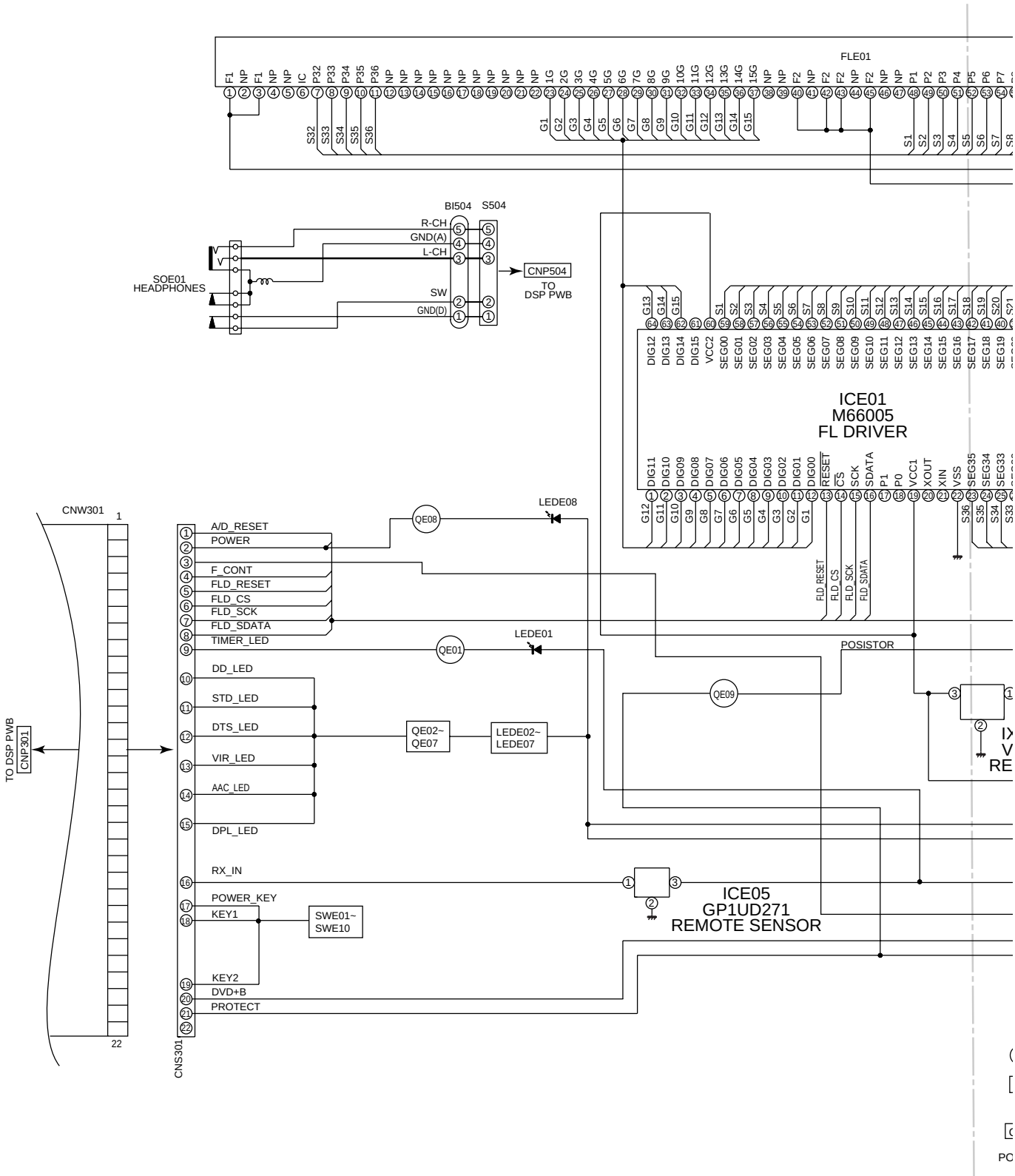


Figure 38 BLOCK DIAGRAM (11/17)

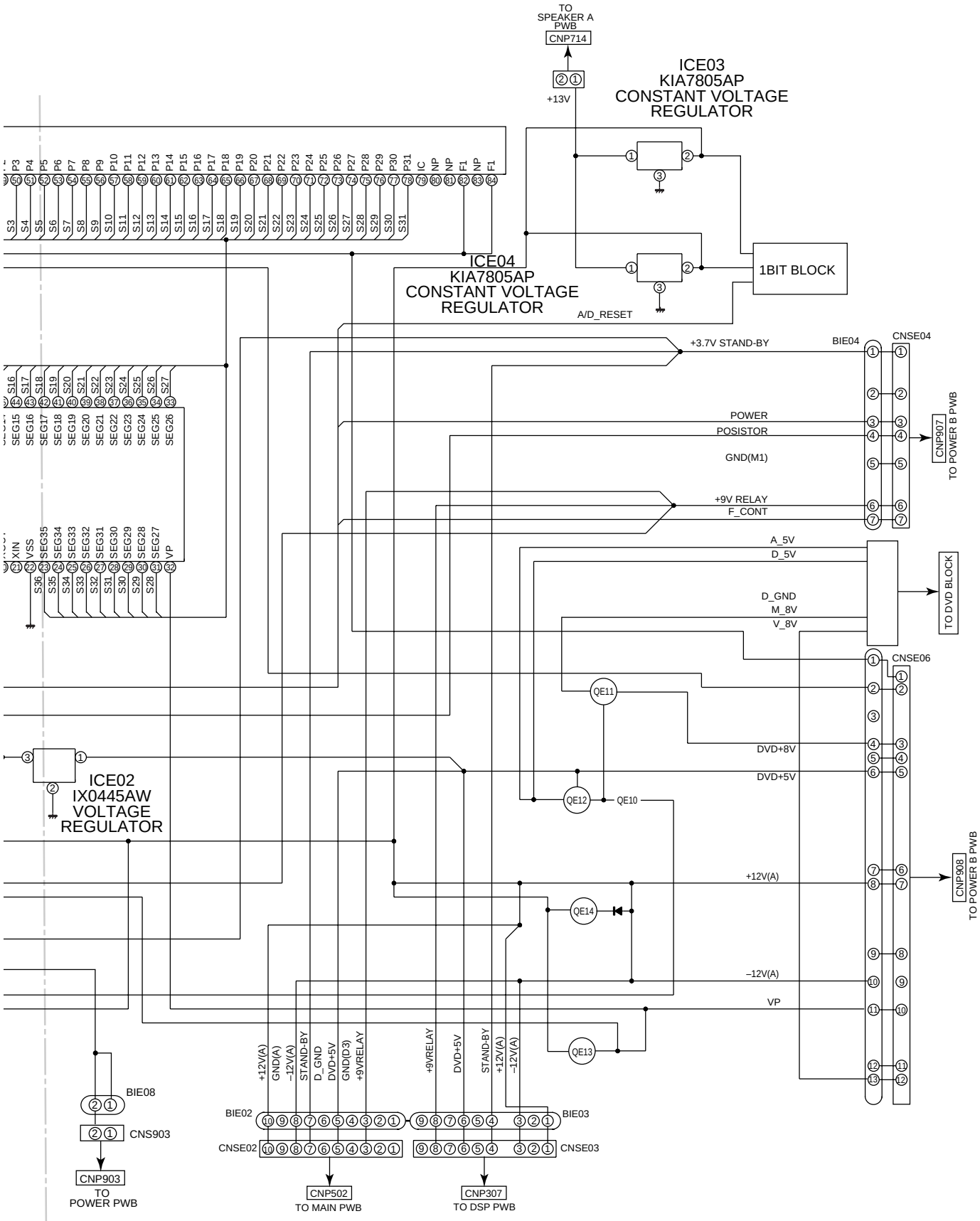


Figure 39 BLOCK DIAGRAM (12/17)

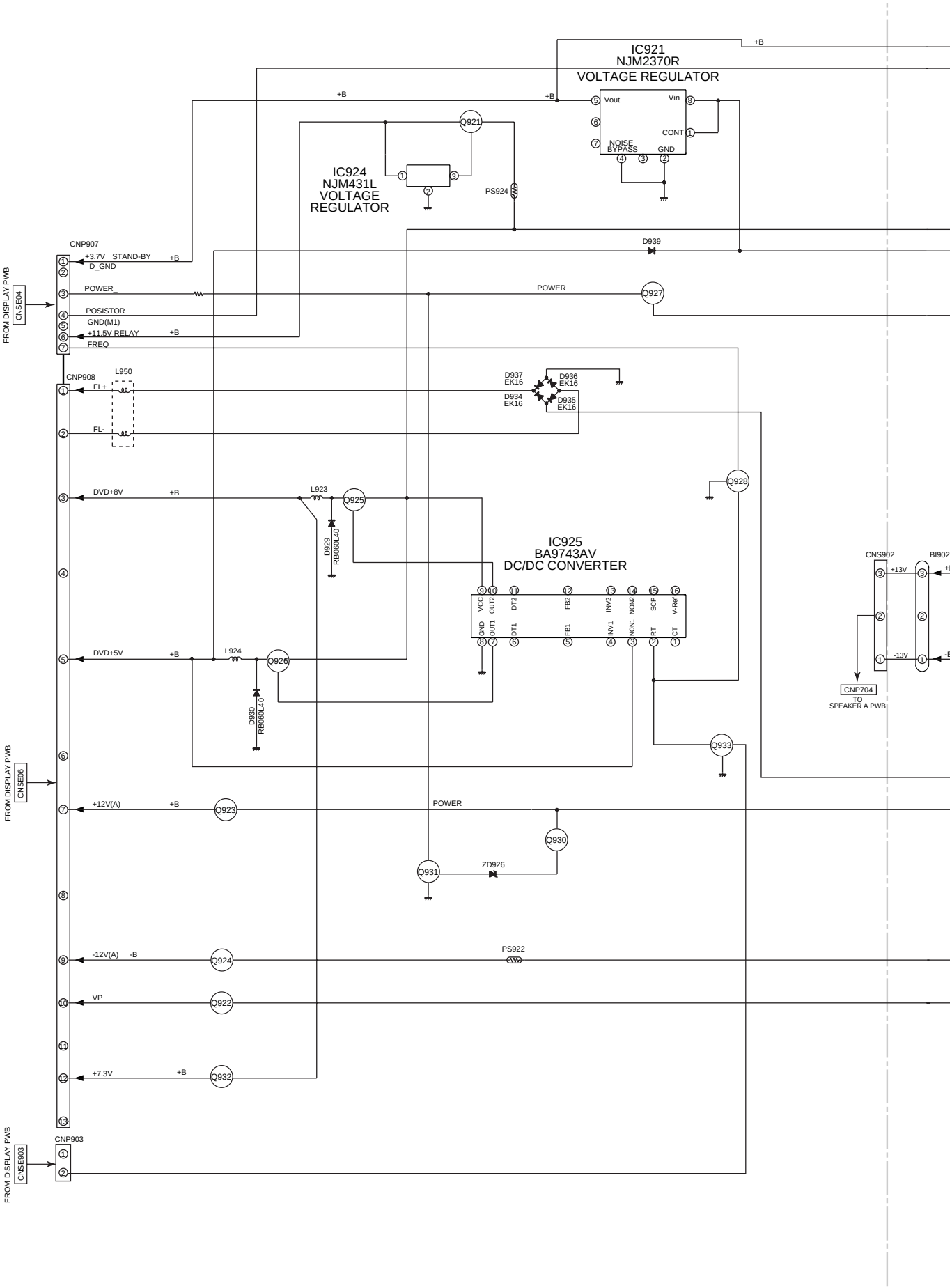


Figure 40 BLOCK DIAGRAM (13/17)

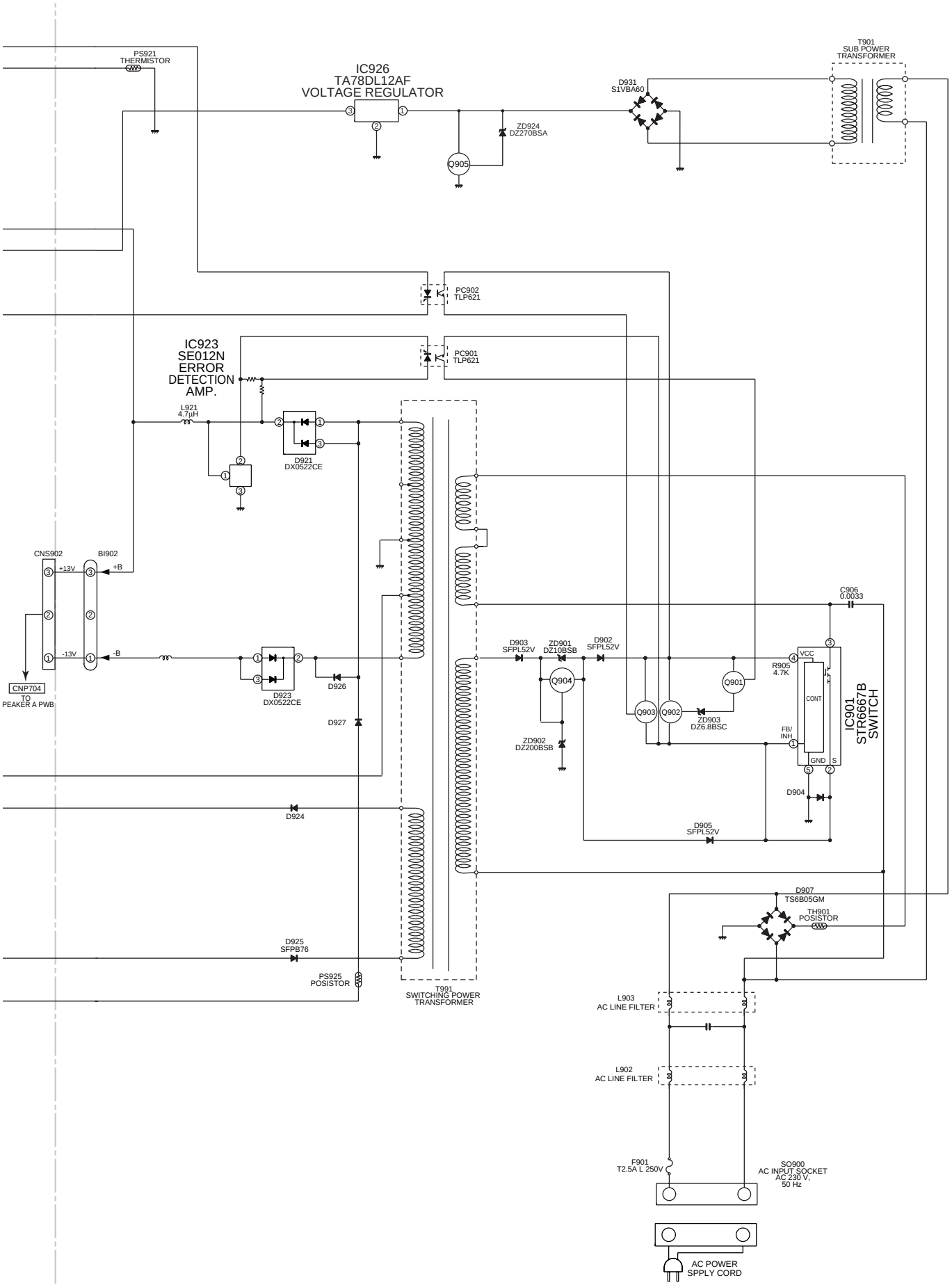


Figure 41 BLOCK DIAGRAM (14/17)

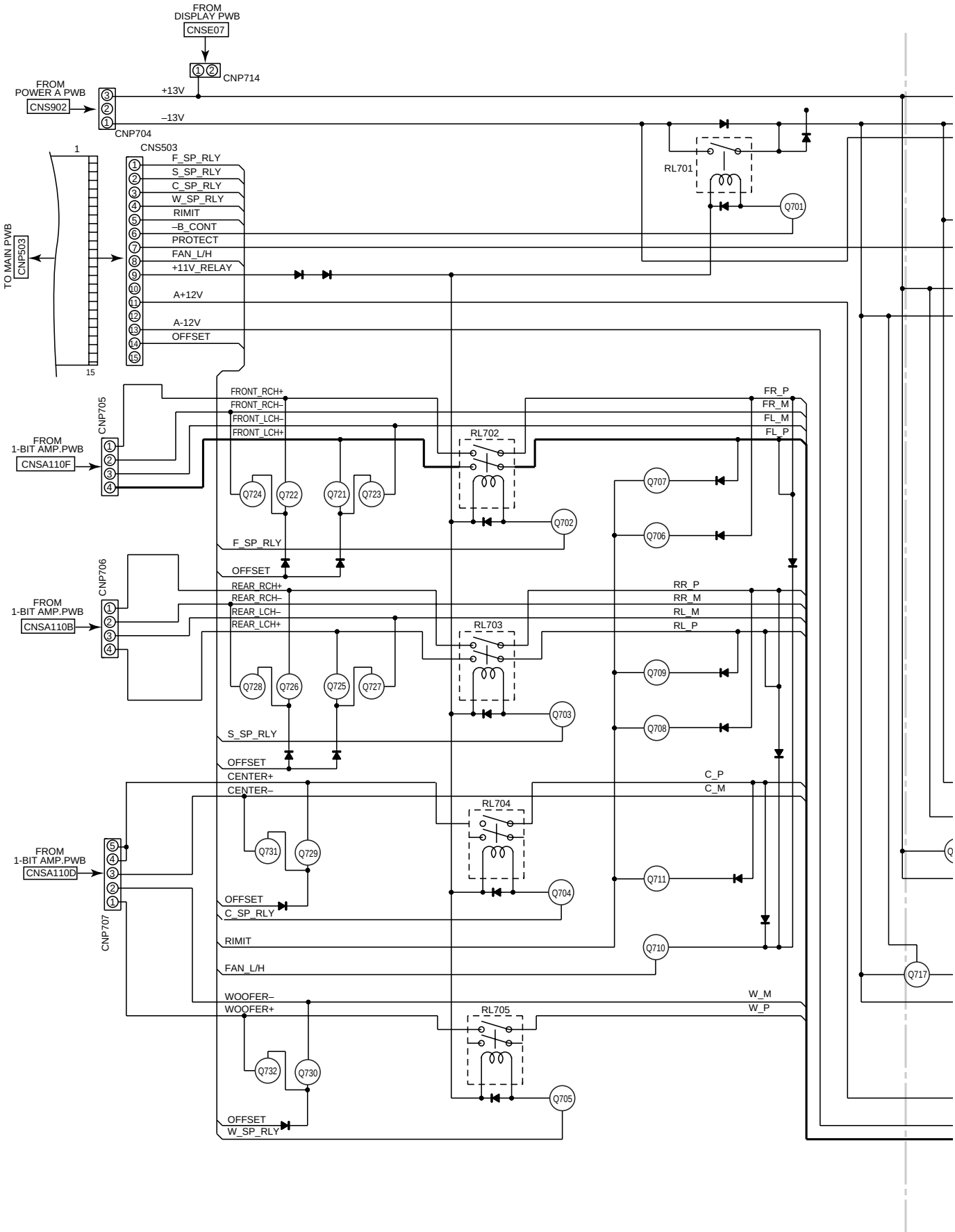


Figure 42 BLOCK DIAGRAM (15/17)

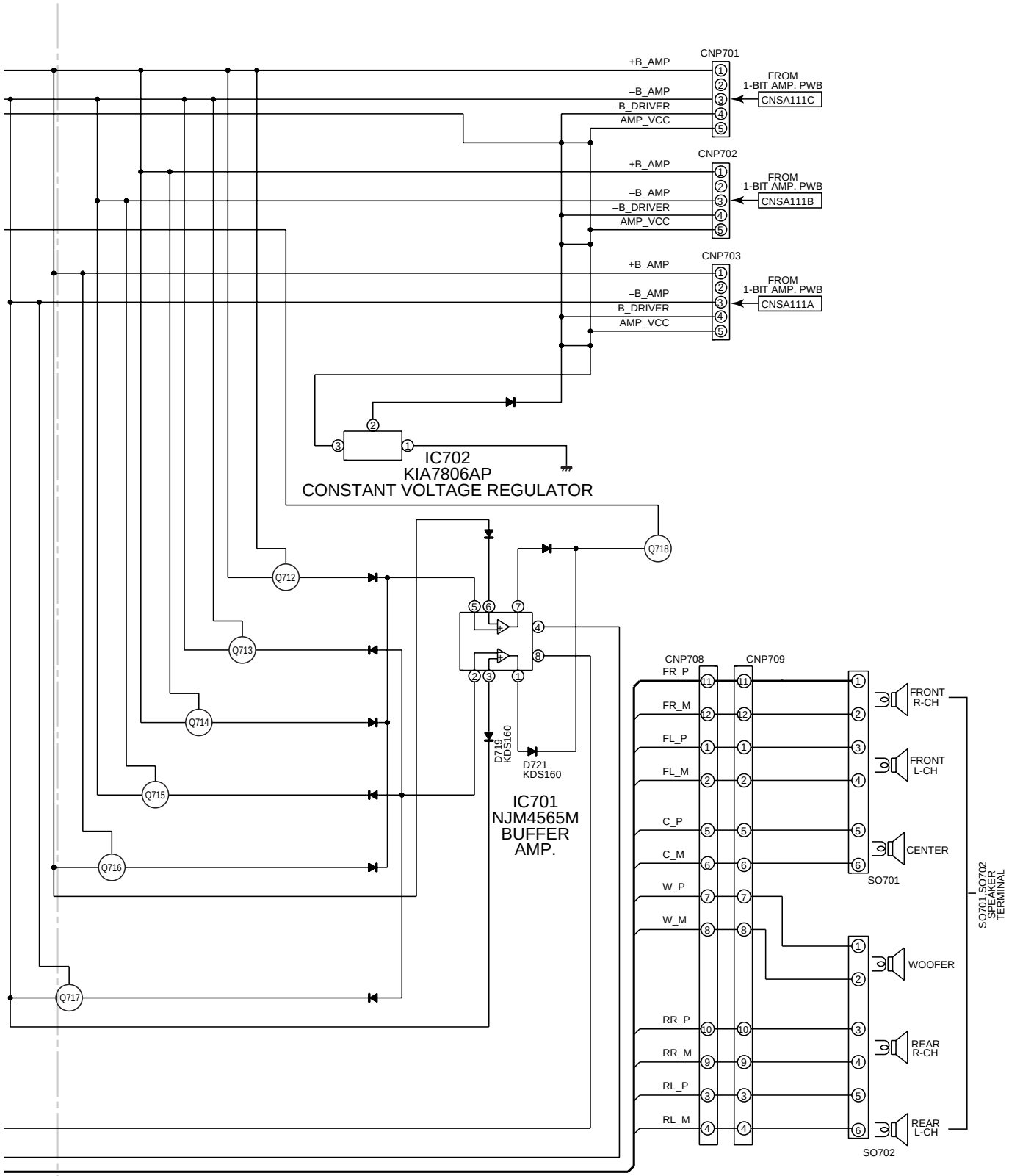


Figure 43 BLOCK DIAGRAM (16/17)

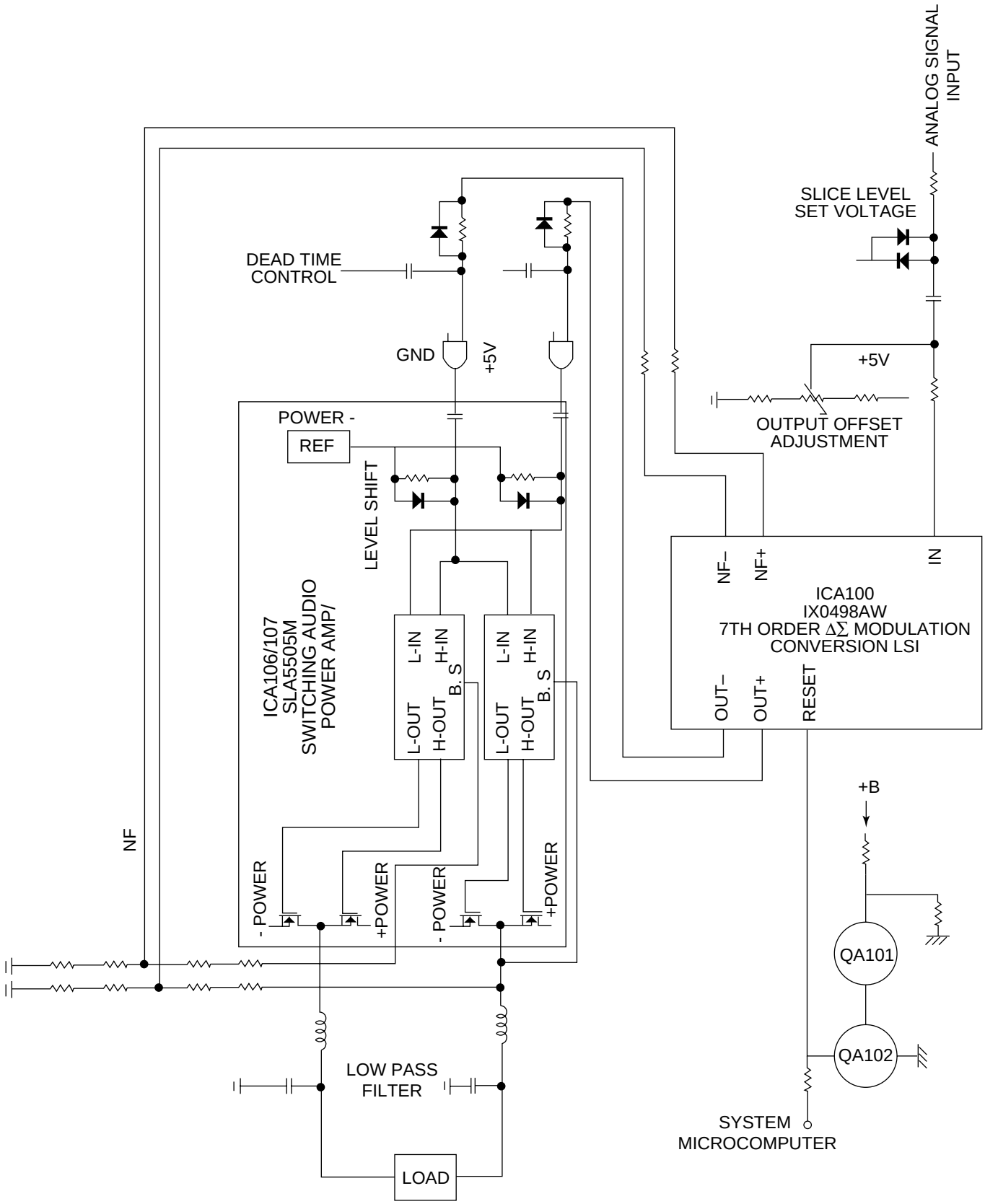


Figure 44 BLOCK DIAGRAM (17/17)

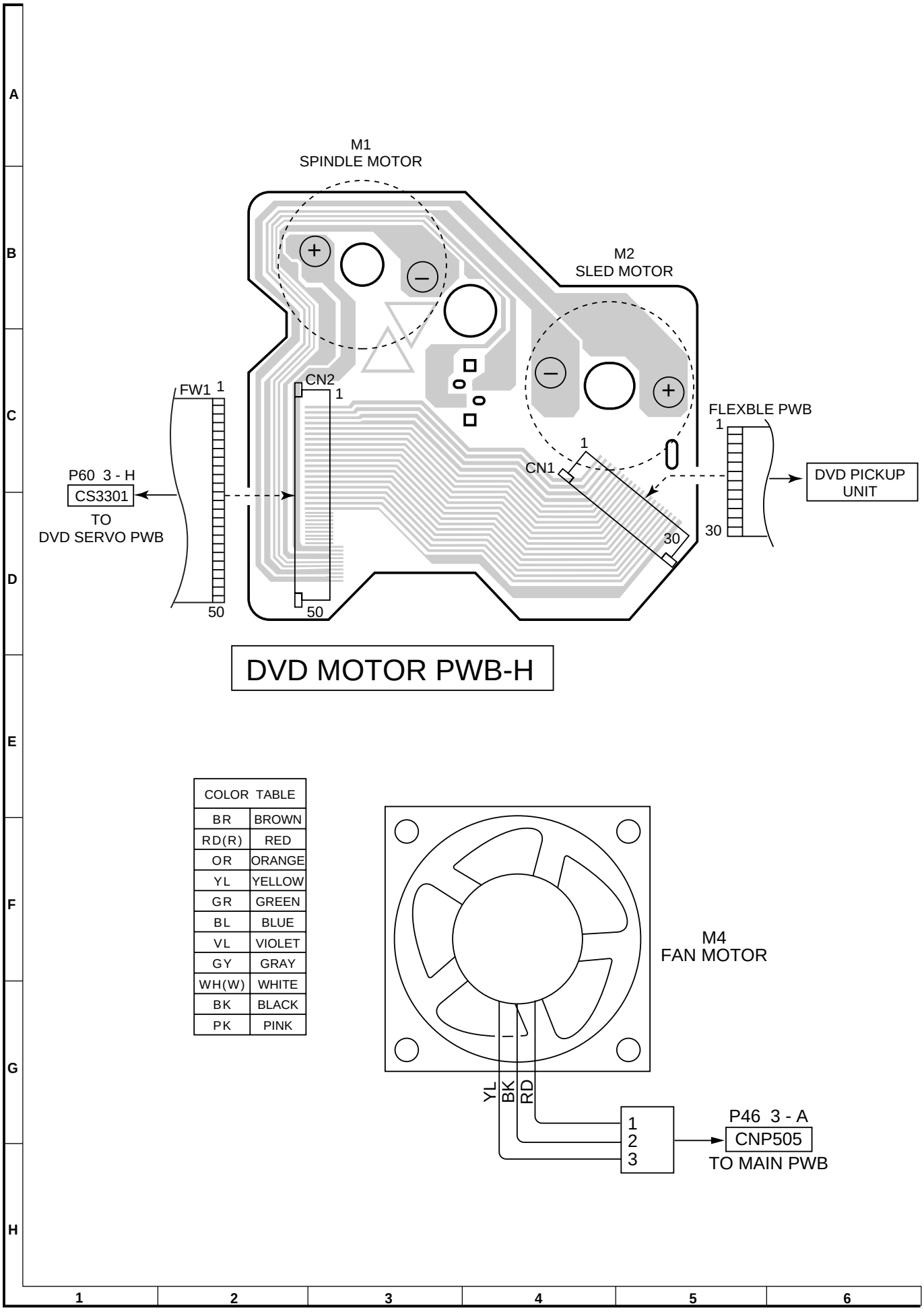


Figure 45 WIRING SIDE OF P.W.BOARD (1/17)

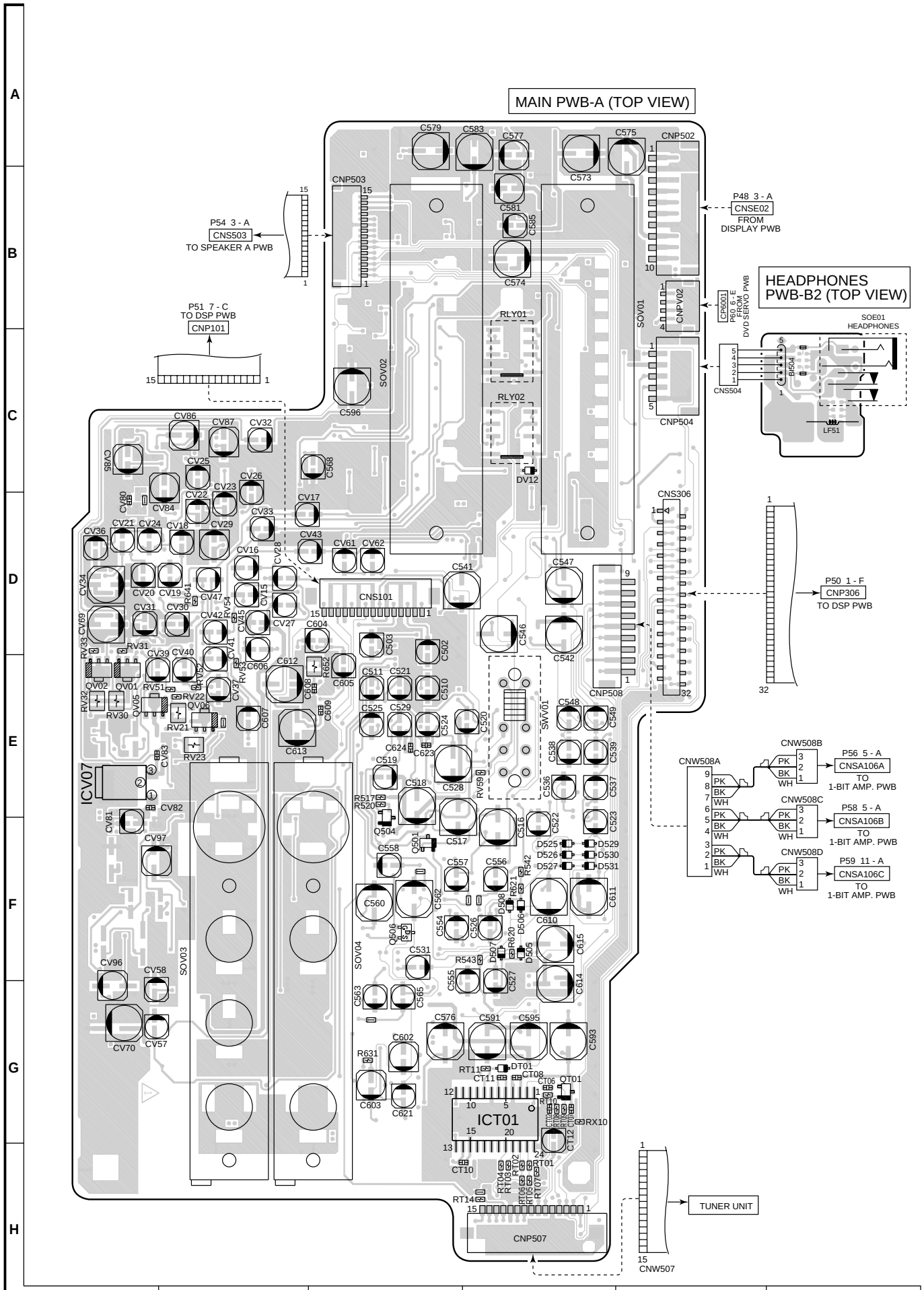
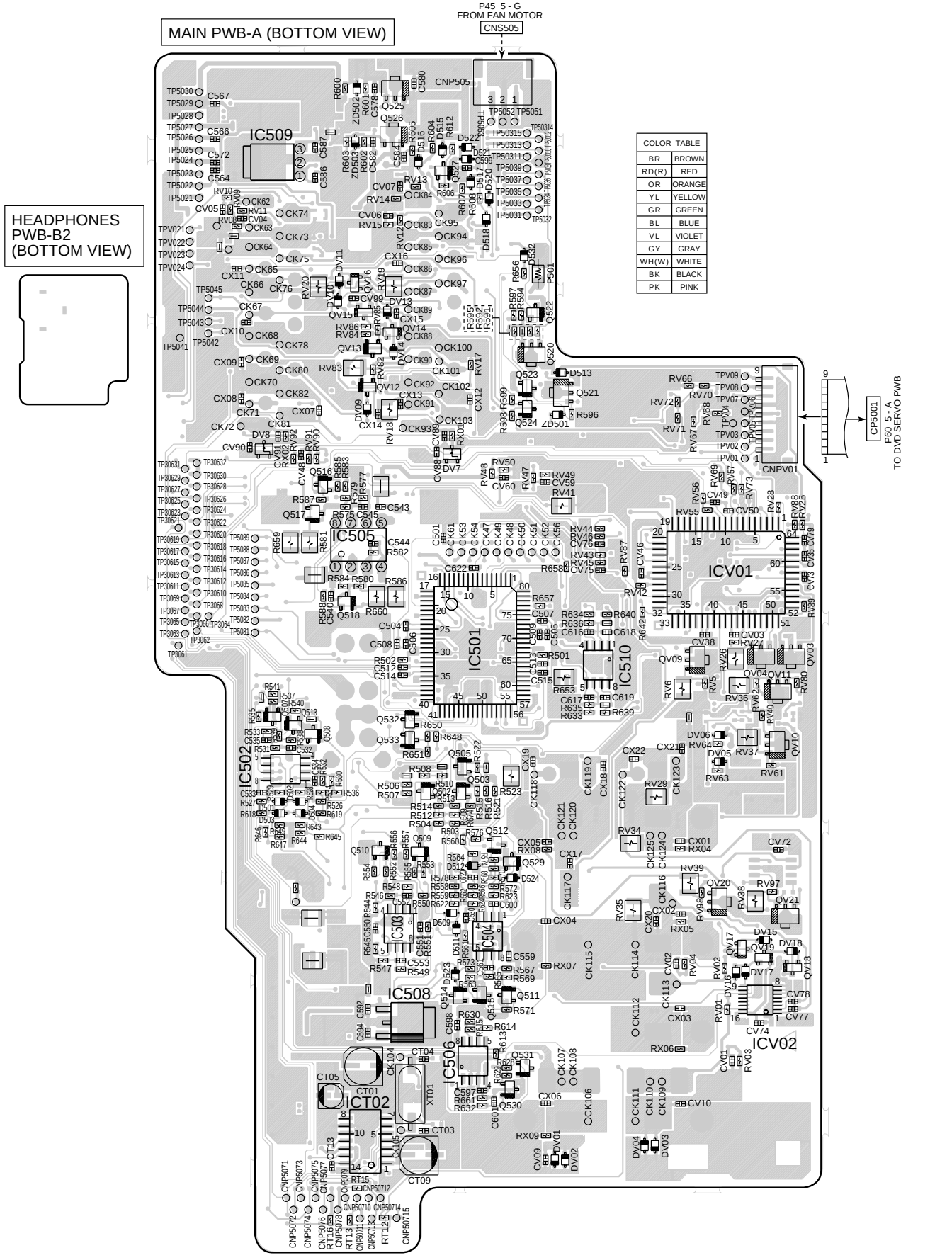


Figure 46 WIRING SIDE OF P.W.BOARD (2/17)



7	8	9	10	11	12

Figure 47 WIRING SIDE OF P.W.BOARD (3/17)

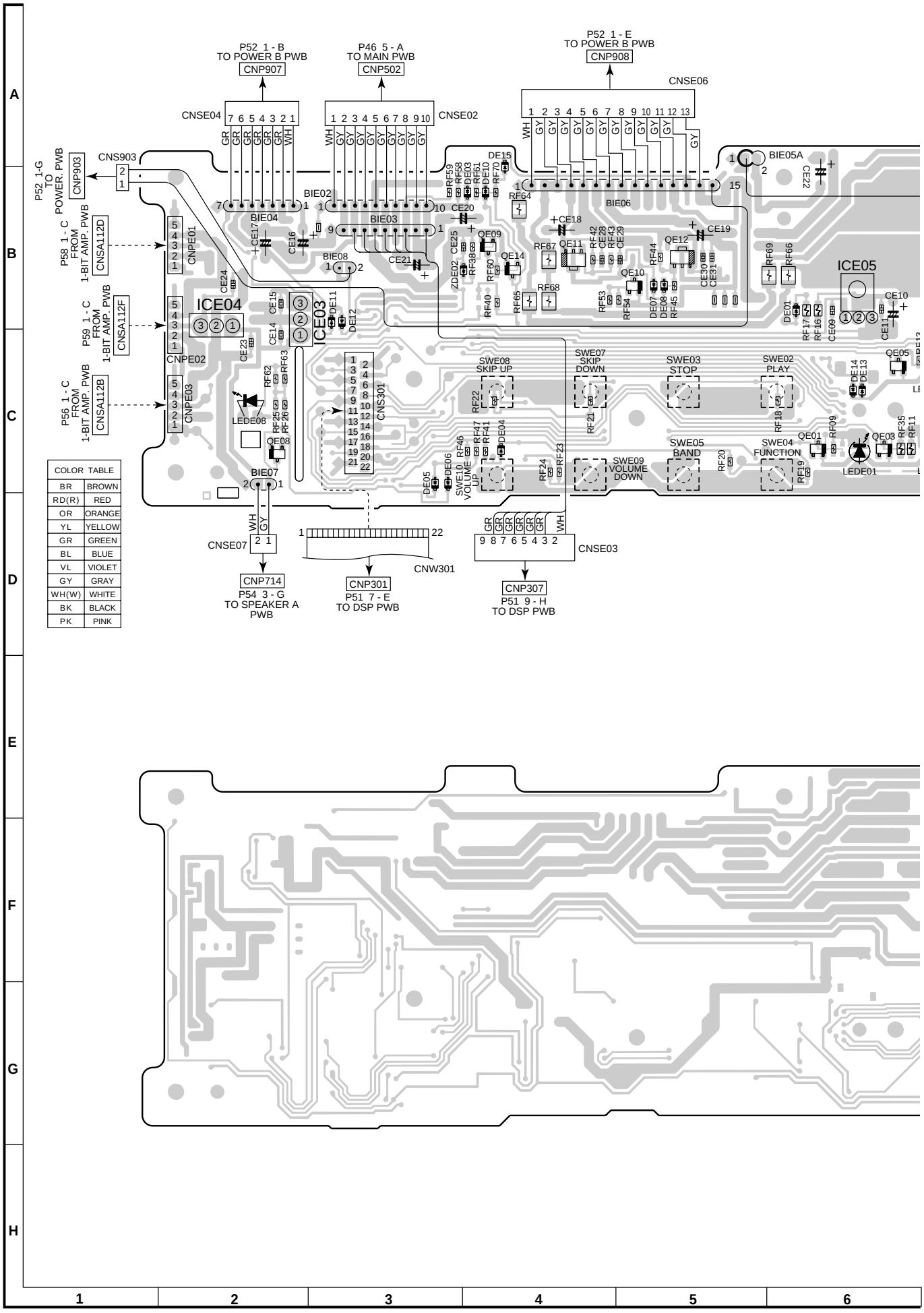
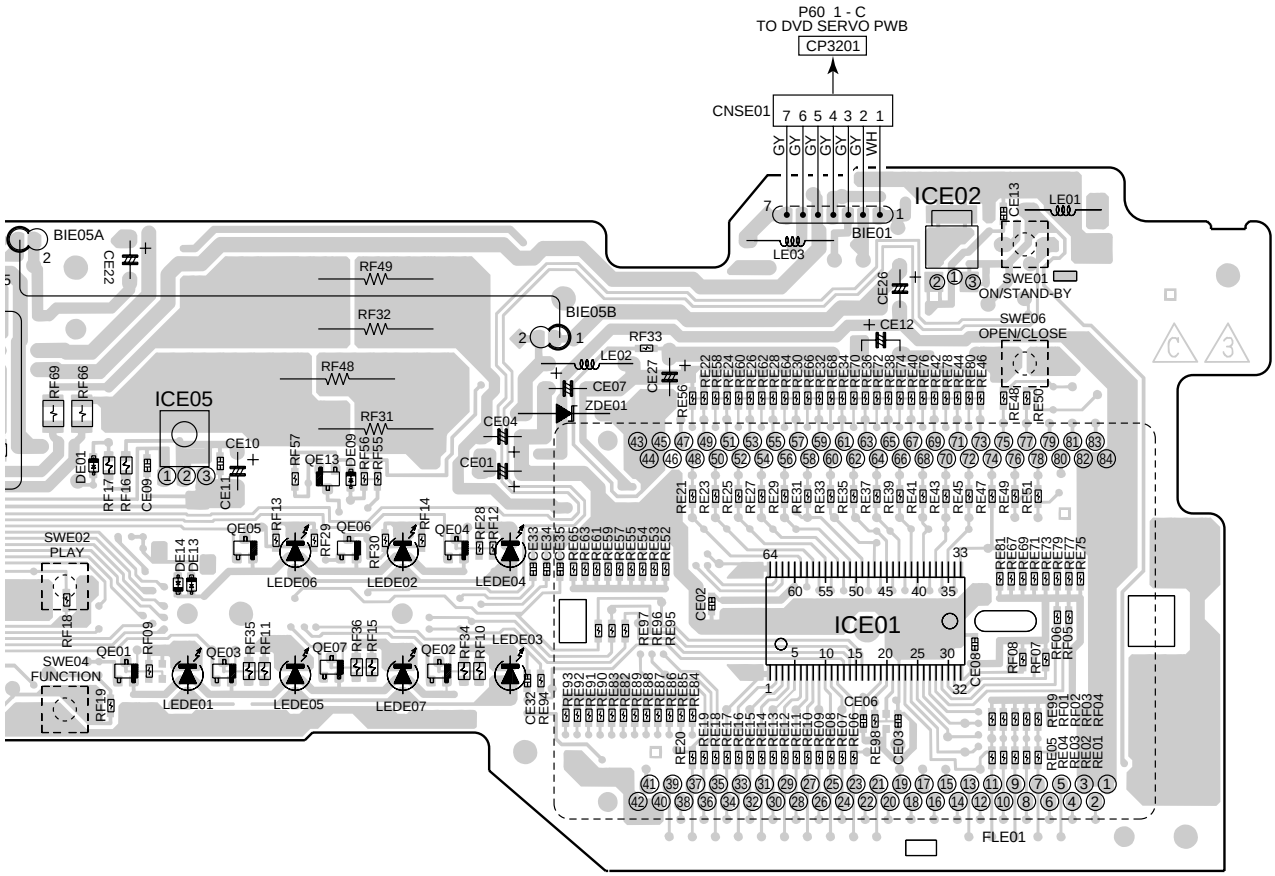
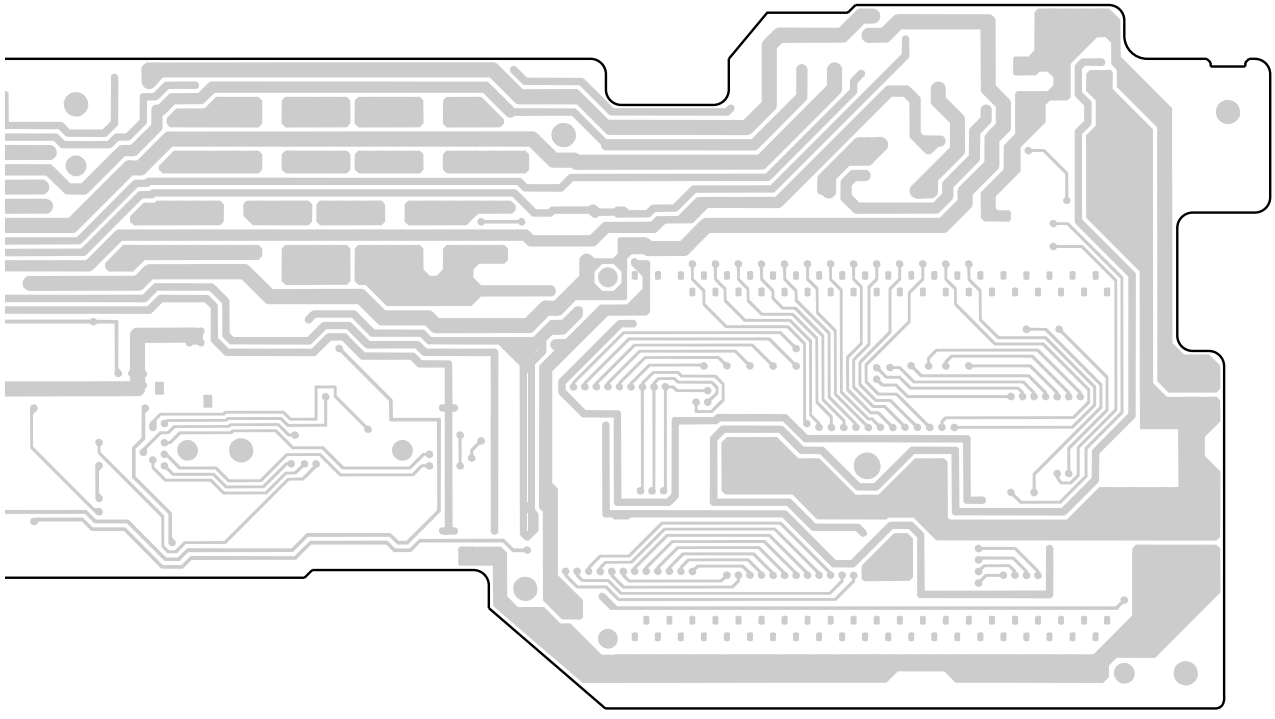


Figure 48 WIRING SIDE OF P.W.BOARD (4/17)



DISPLAY PWB-B1 (TOP VIEW)



DISPLAY PWB-B1 (BOTTOM VIEW)

7	8	9	10	11	12

Figure 49 WIRING SIDE OF P.W.BOARD (5/17)

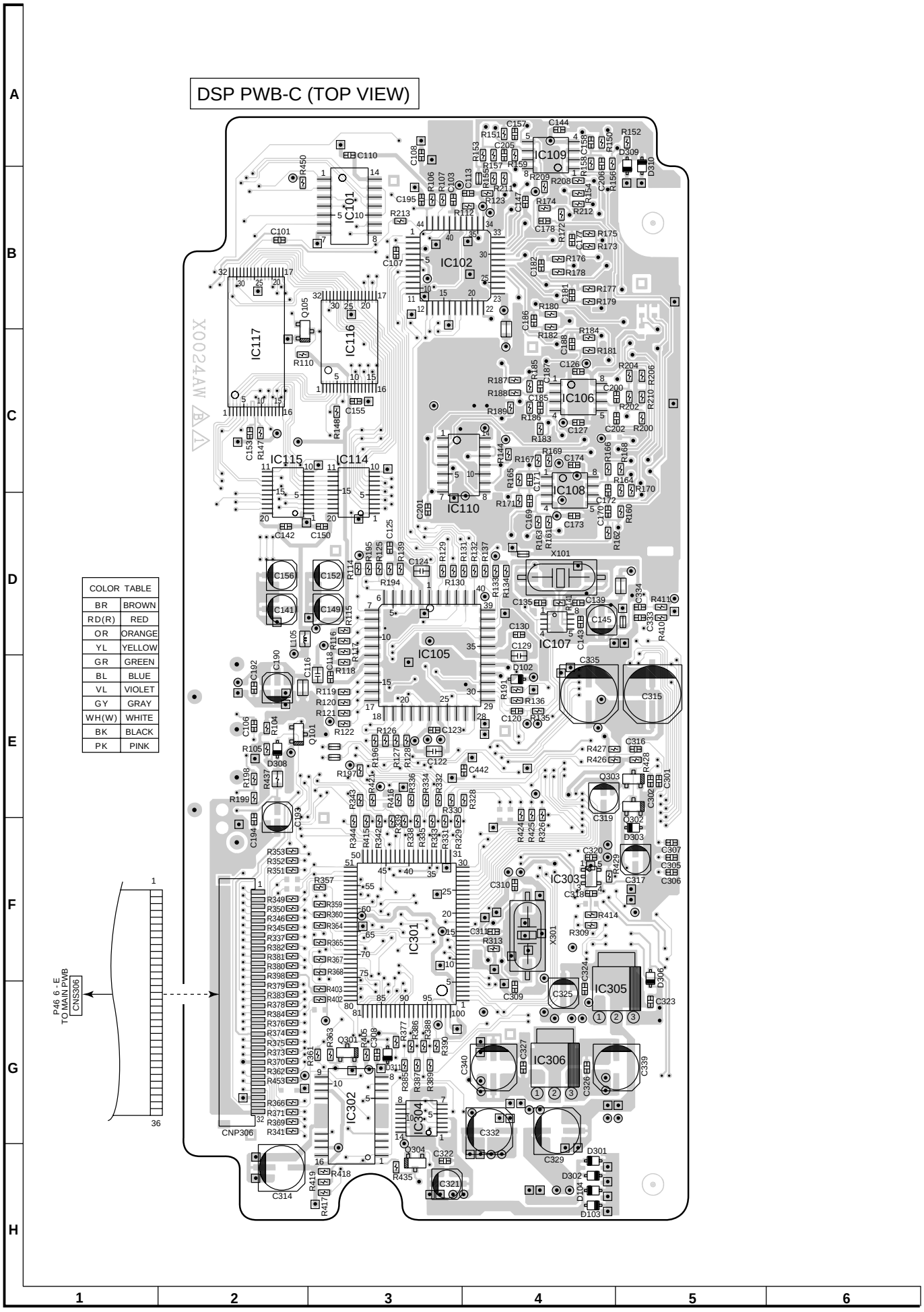


Figure 50 WIRING SIDE OF P.W.BOARD (6/17)

⊙ Through-hole where the top, bottom and +B patterns are connected.
⊡ Through-hole where the top, bottom and ground patterns are connected.
• Through-hole where the top, and bottom patterns are connected.

DSP PWB-C (BOTTOM VIEW)

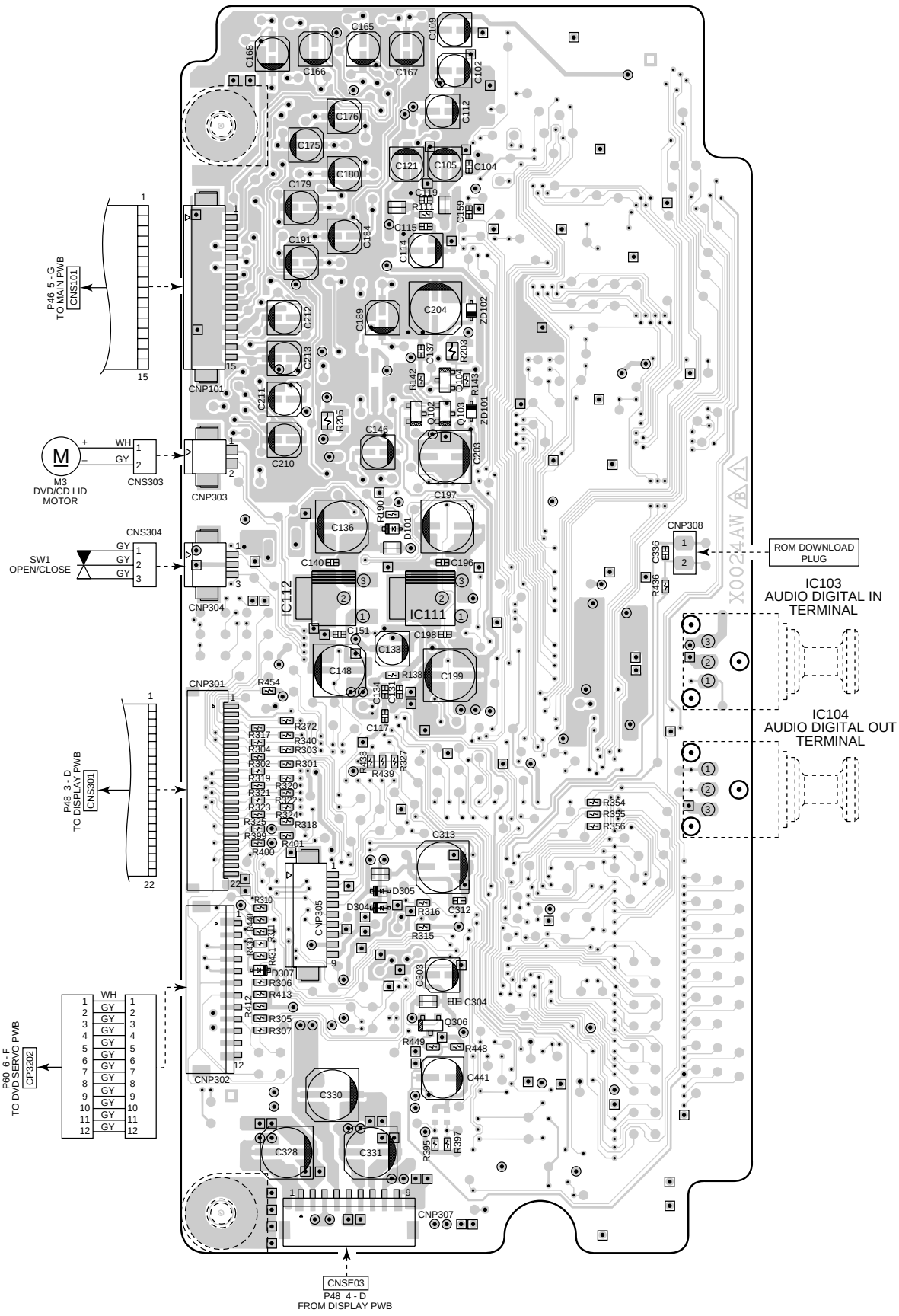


Figure 51 WIRING SIDE OF P.W.BOARD (7/17)

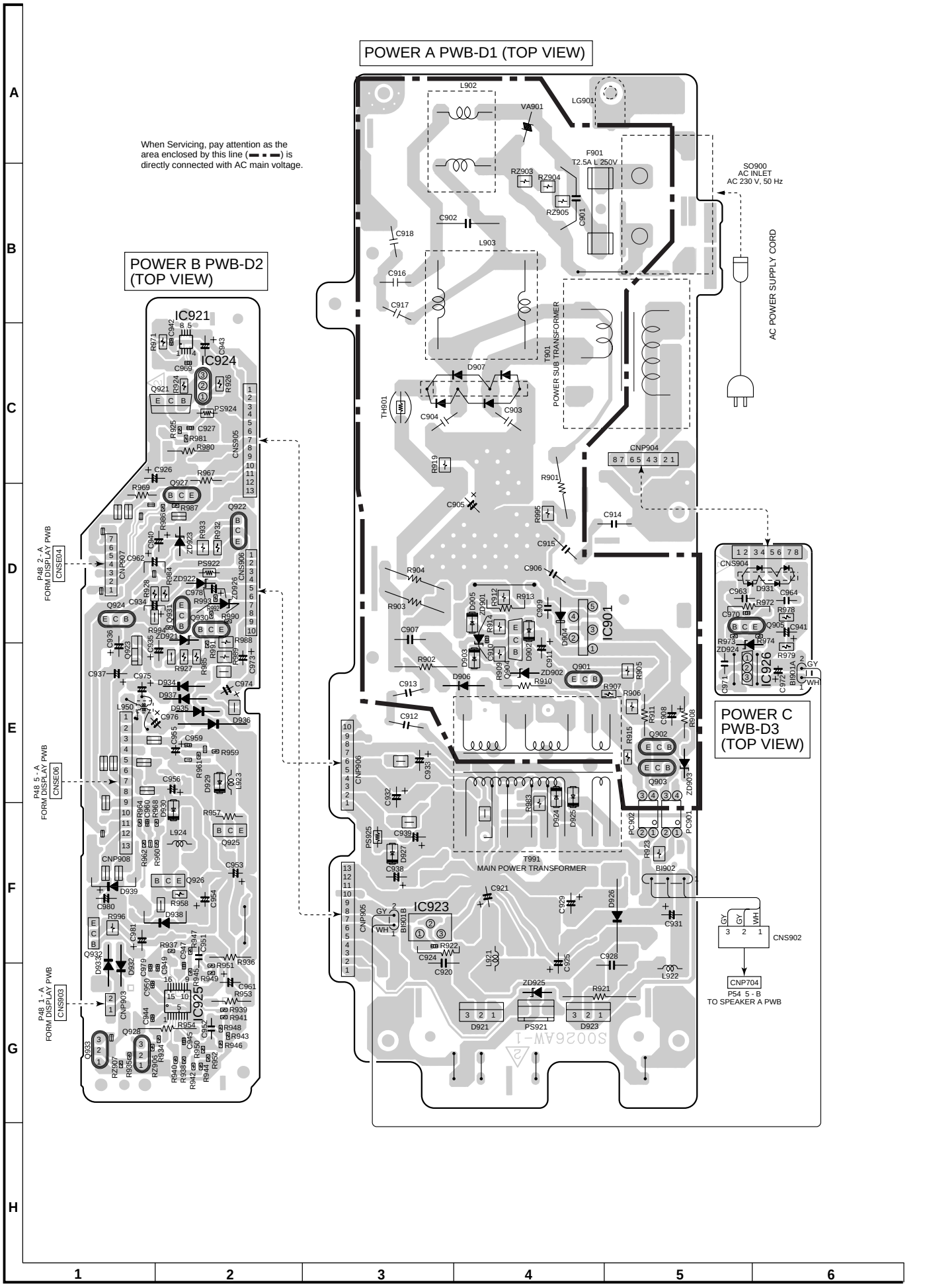
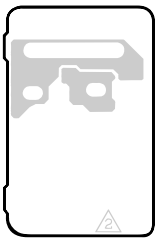

POWER A PWB-D1 (TOP VIEW)
POWER B PWB-D2 (TOP VIEW)
POWER C PWB-D3 (TOP VIEW)
When Servicing, pay attention as the area enclosed by this line (▬ ▪ ▬) is directly connected with AC main voltage.
AC POWER SUPPLY CORD
SO900 AC INLET AC 230 V, 50 Hz
F901 T2.5A L 250V
POWER SUB TRANSFORMER
T901
MAIN POWER TRANSFORMER
T991
IC901
IC921
IC923
IC924
IC925
IC926
CNS902
CNP704
P54 5 - B TO SPEAKER A PWB
P48 2 - A FORM DISPLAY PWB CNSE04
P48 5 - A FORM DISPLAY PWB CNSE06
P48 1 - A FORM DISPLAY PWB CNS903

Figure 52 WIRING SIDE OF P.W.BOARD (8/17)

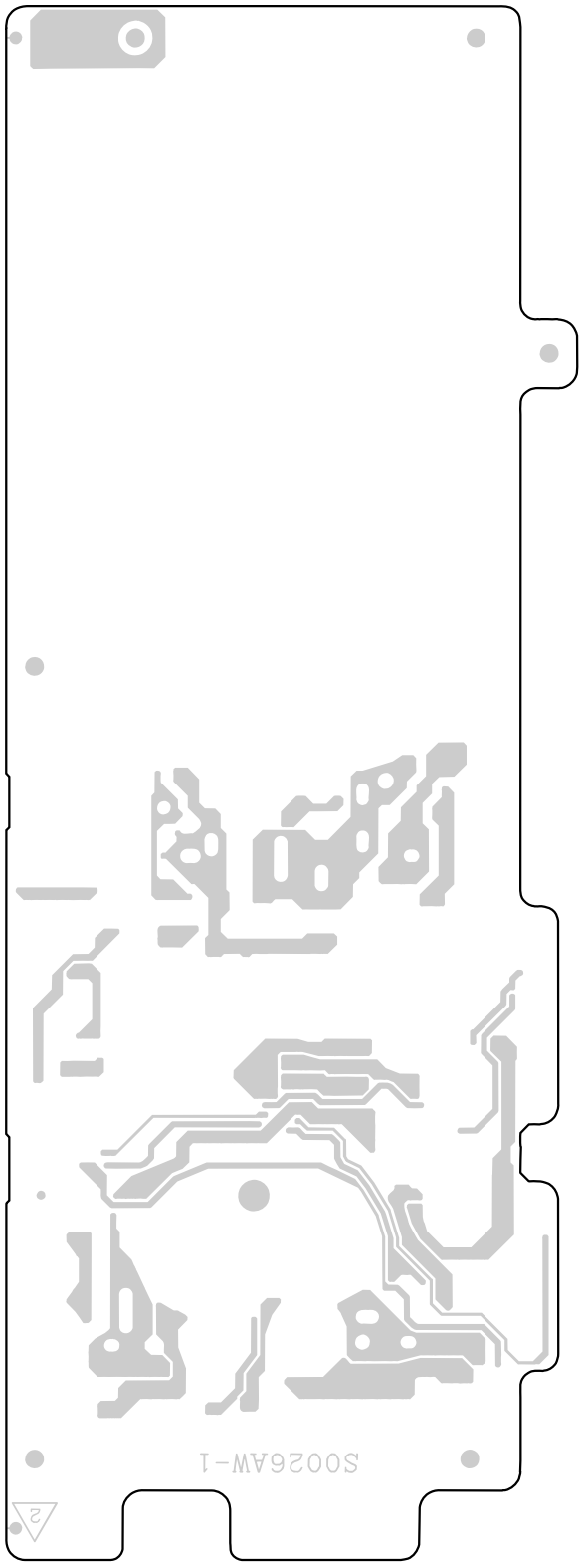
POWER A PWB-D1 (BOTTOM VIEW)

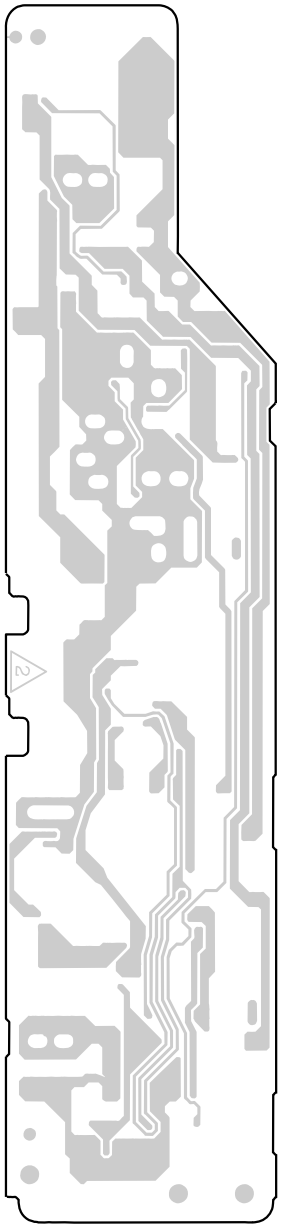
POWER B PWB-D2
(BOTTOM VIEW)

COLOR TABLE	
BR	BROWN
RD(R)	RED
OR	ORANGE
YL	YELLOW
GR	GREEN
BL	BLUE
VL	VIOLET
GY	GRAY
WH(W)	WHITE
BK	BLACK
PK	PINK



POWER C
PWB-D3
(BOTTOM VIEW)





7	8	9	10	11	12

Figure 53 WIRING SIDE OF P.W.BOARD (9/17)

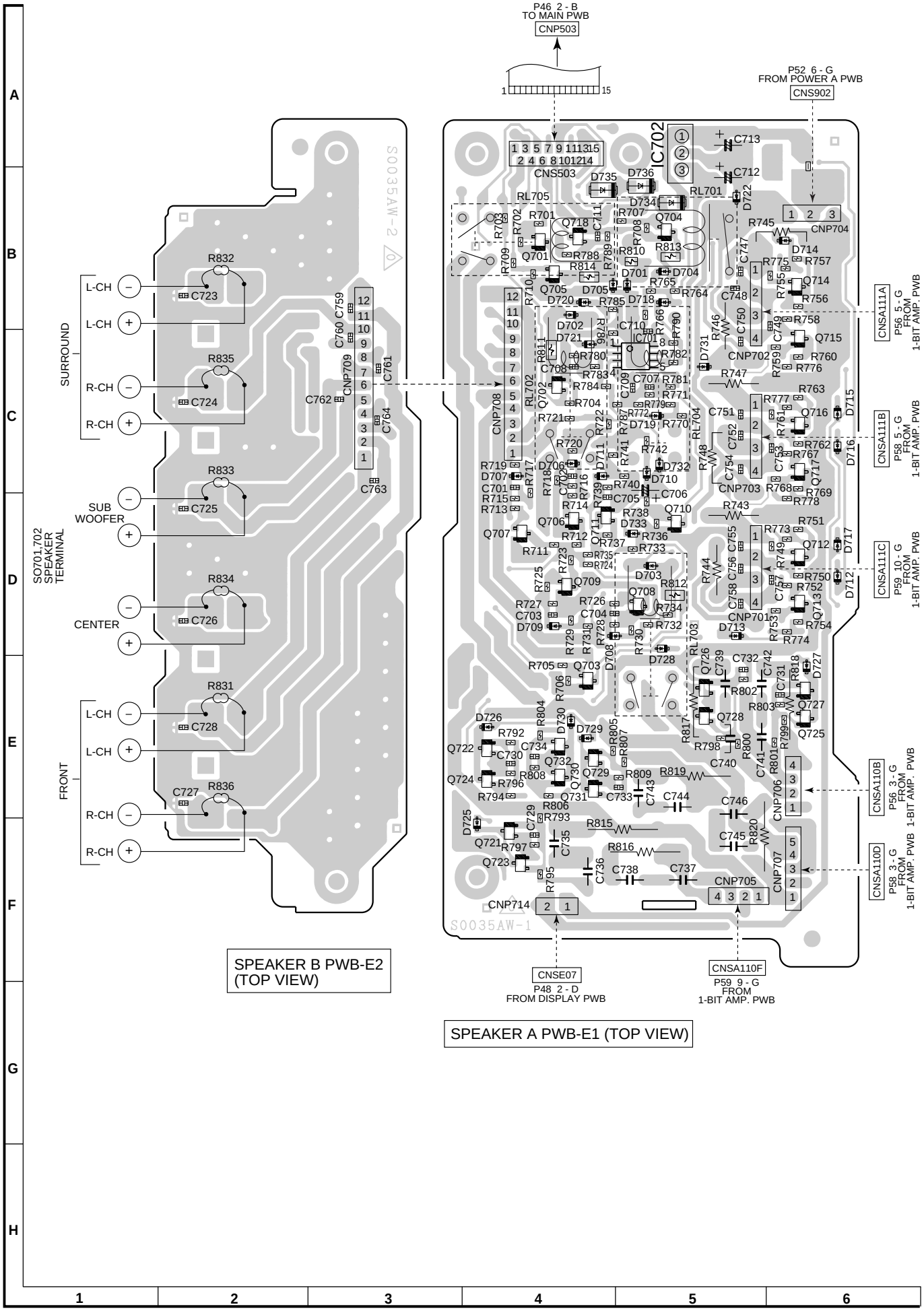
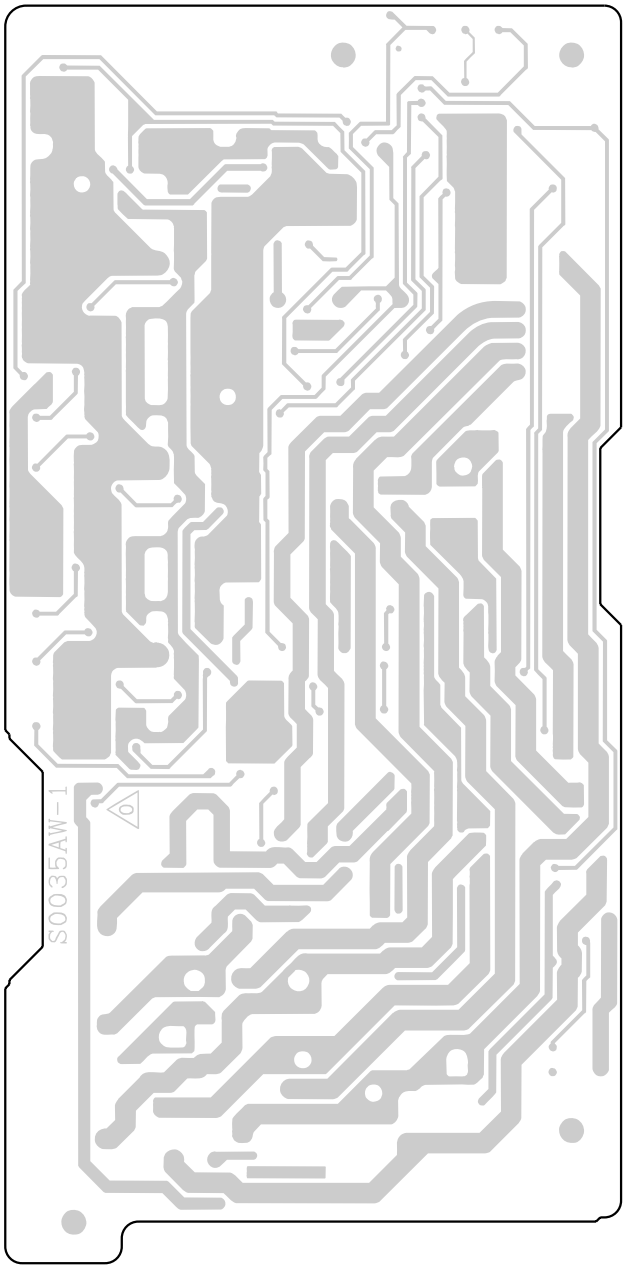
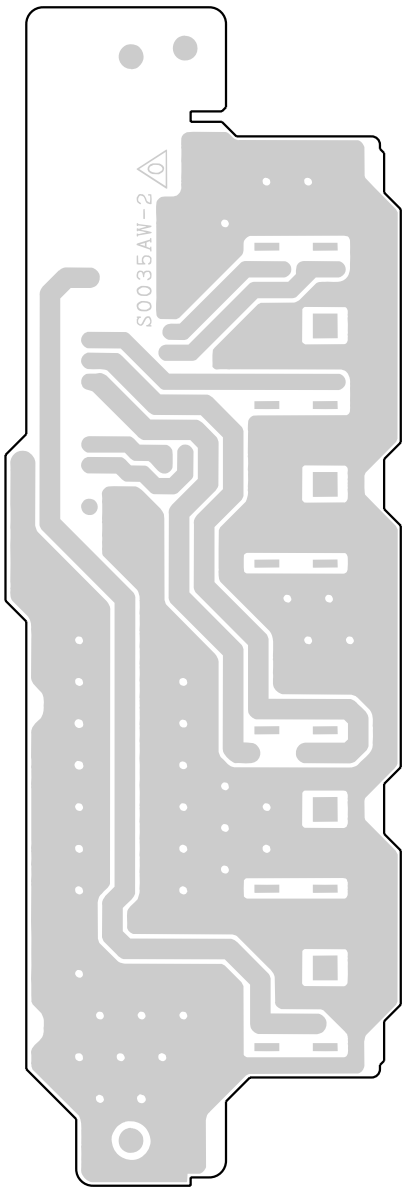


Figure 54 WIRING SIDE OF P.W.BOARD (10/17)



SPEAKER A PWB-E1 (BOTTOM VIEW)



SPEAKER B PWB-E2
(BOTTOM VIEW)

7	8	9	10	11	12

Figure 55 WIRING SIDE OF P.W.BOARD (11/17)

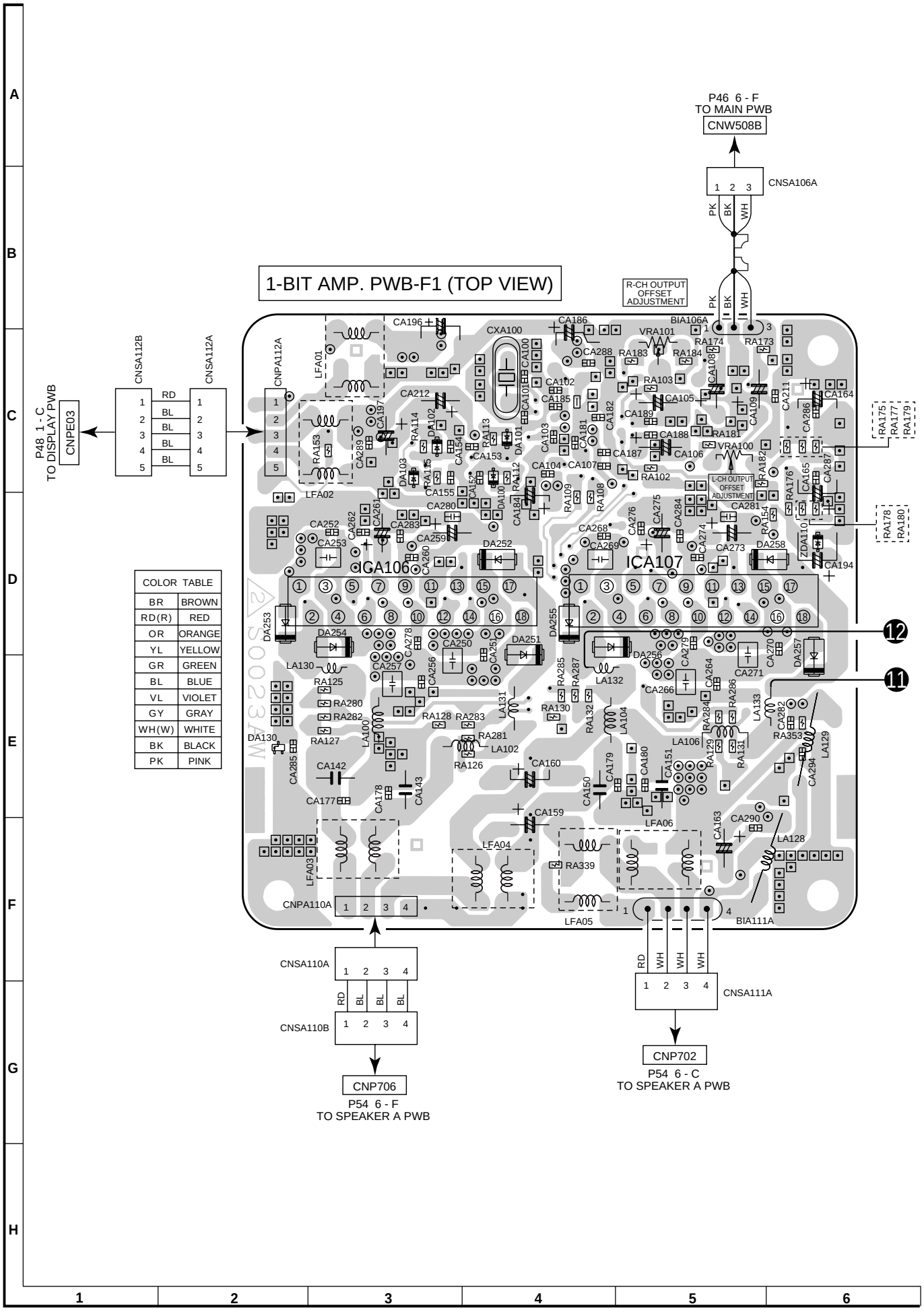
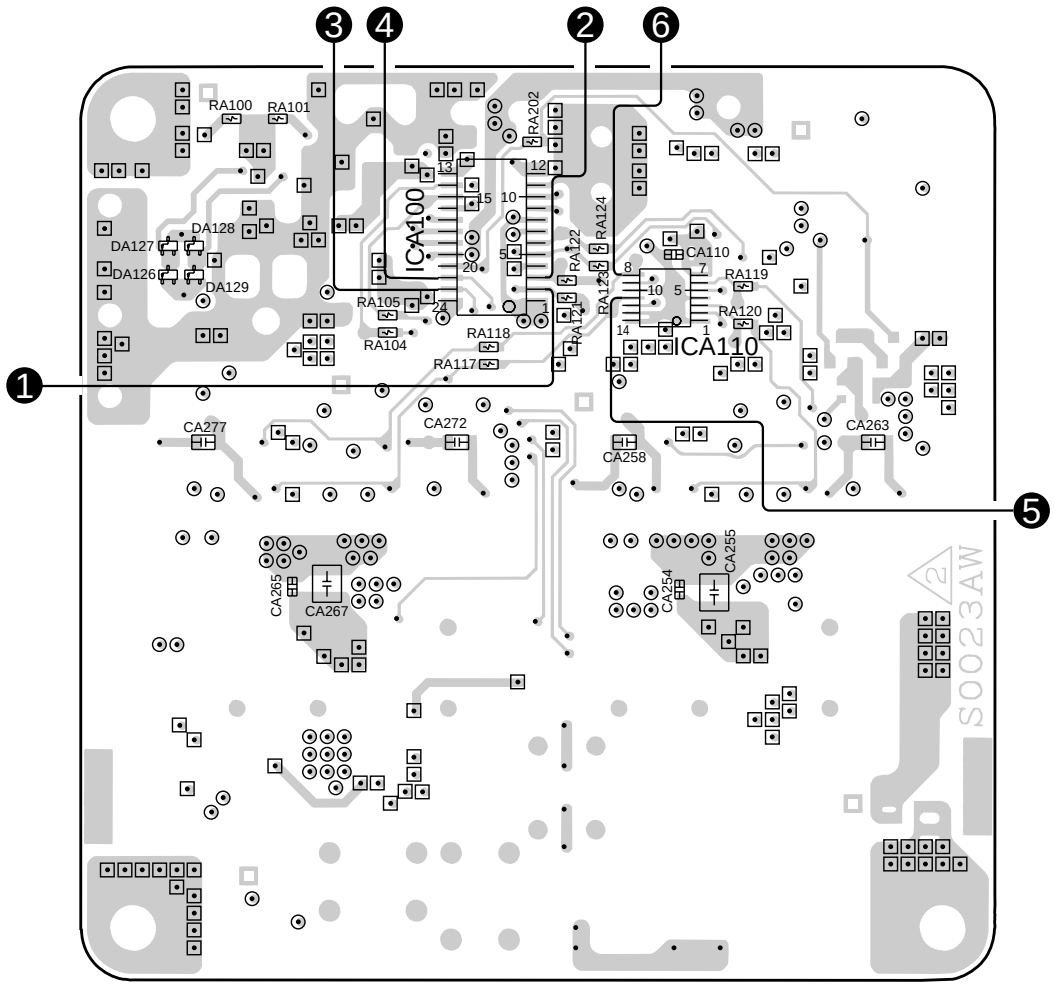


Figure 56 WIRING SIDE OF P.W.BOARD (12/17)

⊙ Through-hole where the top, bottom and +B patterns are connected.
⊡ Through-hole where the top, bottom and ground patterns are connected.
• Through-hole where the top, and bottom patterns are connected.

1-BIT AMP. PWB-F1~3 (BOTTOM VIEW)



• The numbers 1 to 6 , 11 , 12 are waveform numbers shown in page 87.

7	8	9	10	11	12

Figure 57 WIRING SIDE OF P.W.BOARD (13/17)

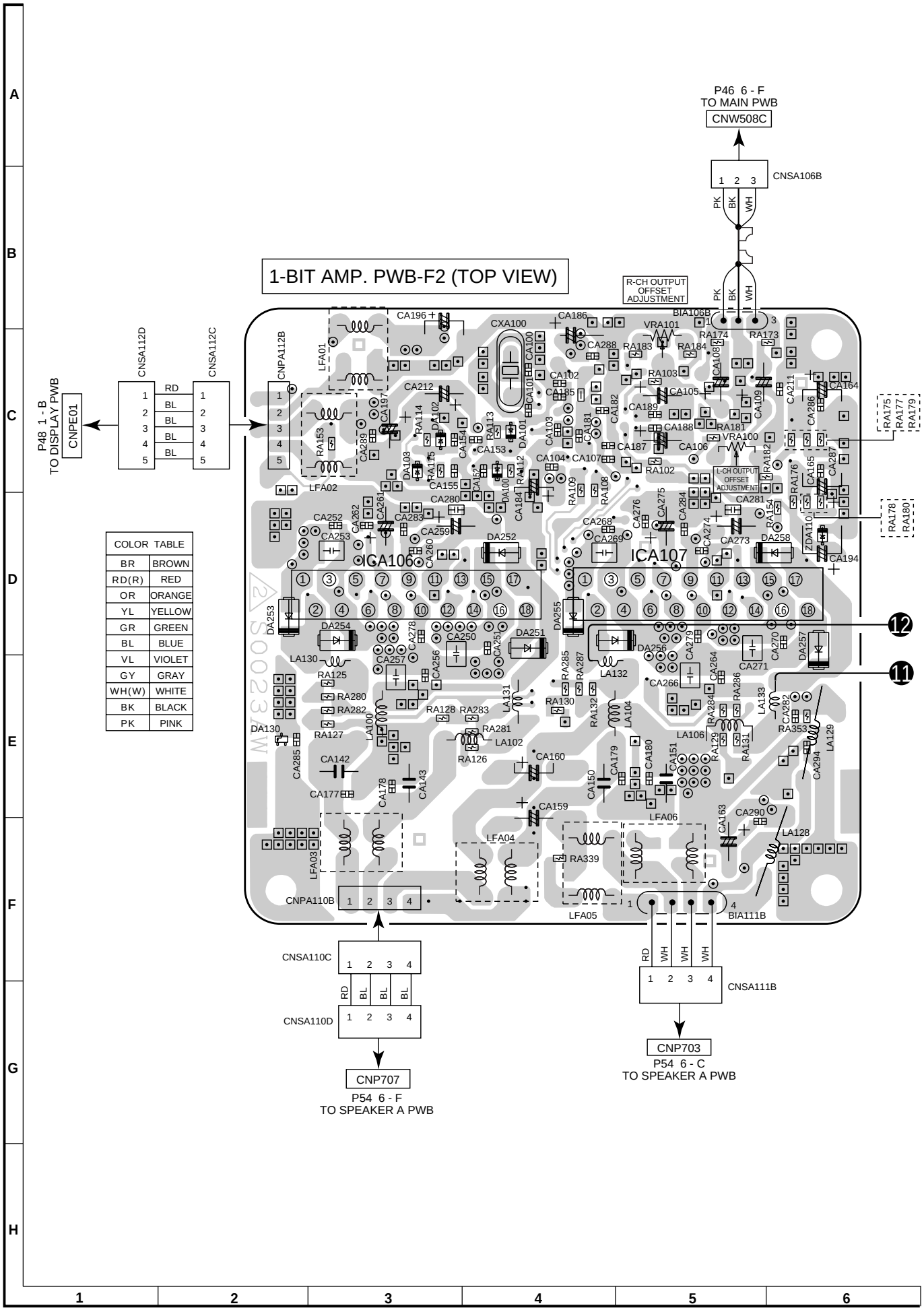
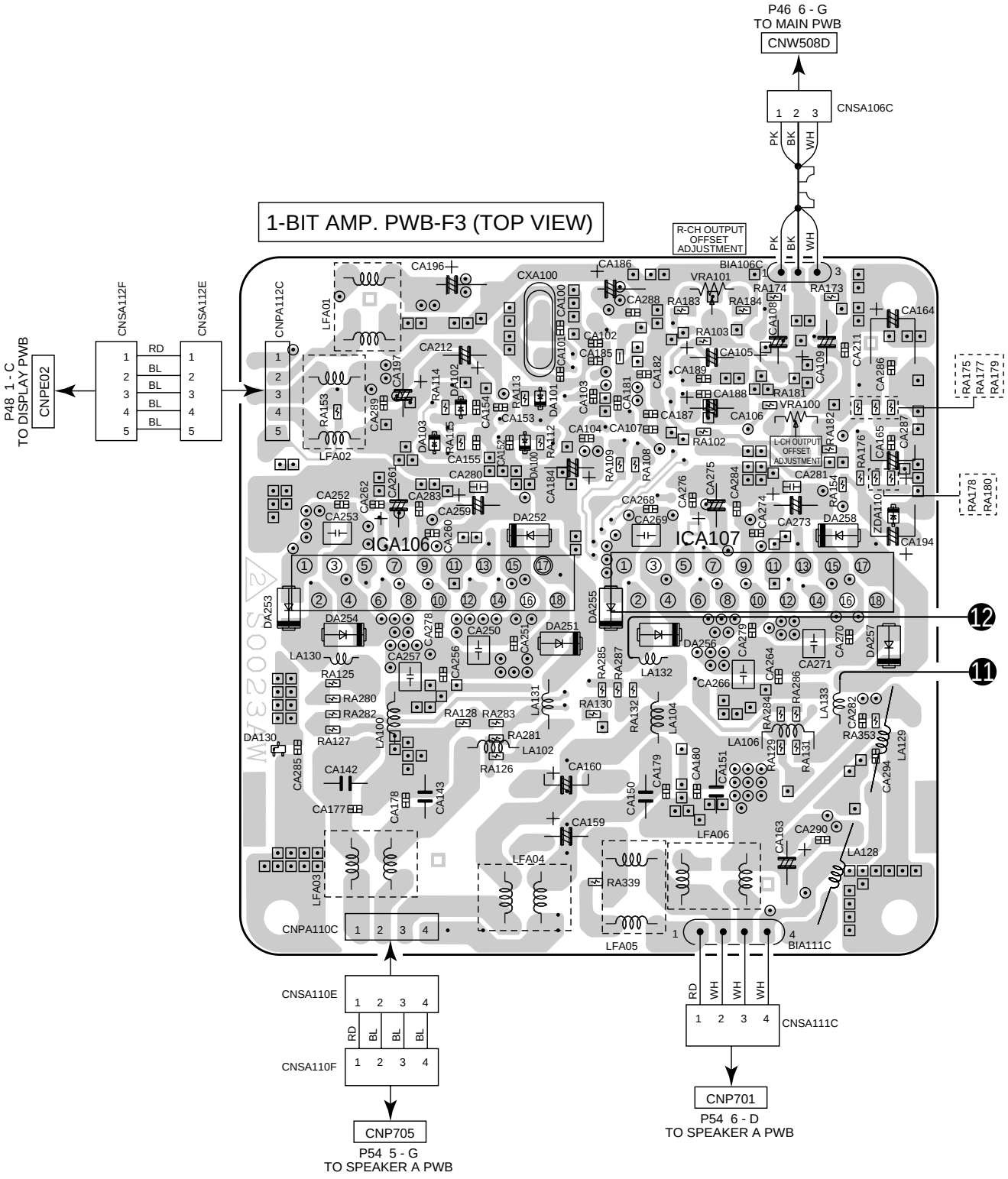


Figure 58 WIRING SIDE OF P.W.BOARD (14/17)

⊙ Through-hole where the top, bottom and +B patterns are connected.
⊡ Through-hole where the top, bottom and ground patterns are connected.
• Through-hole where the top, and bottom patterns are connected.



• The numbers 11, 12 are waveform numbers shown in page 87.

Figure 59 WIRING SIDE OF P.W.BOARD (15/17)

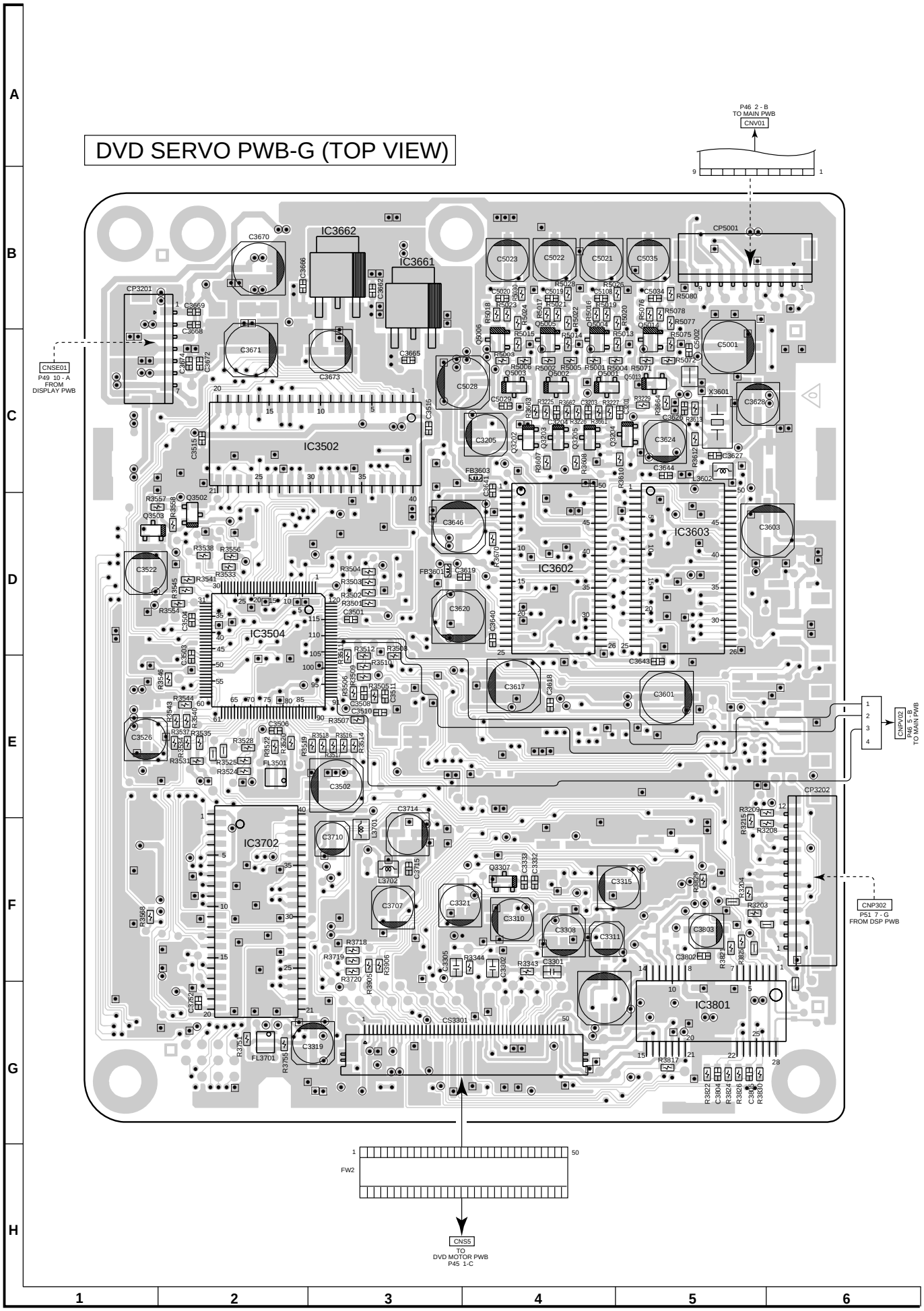
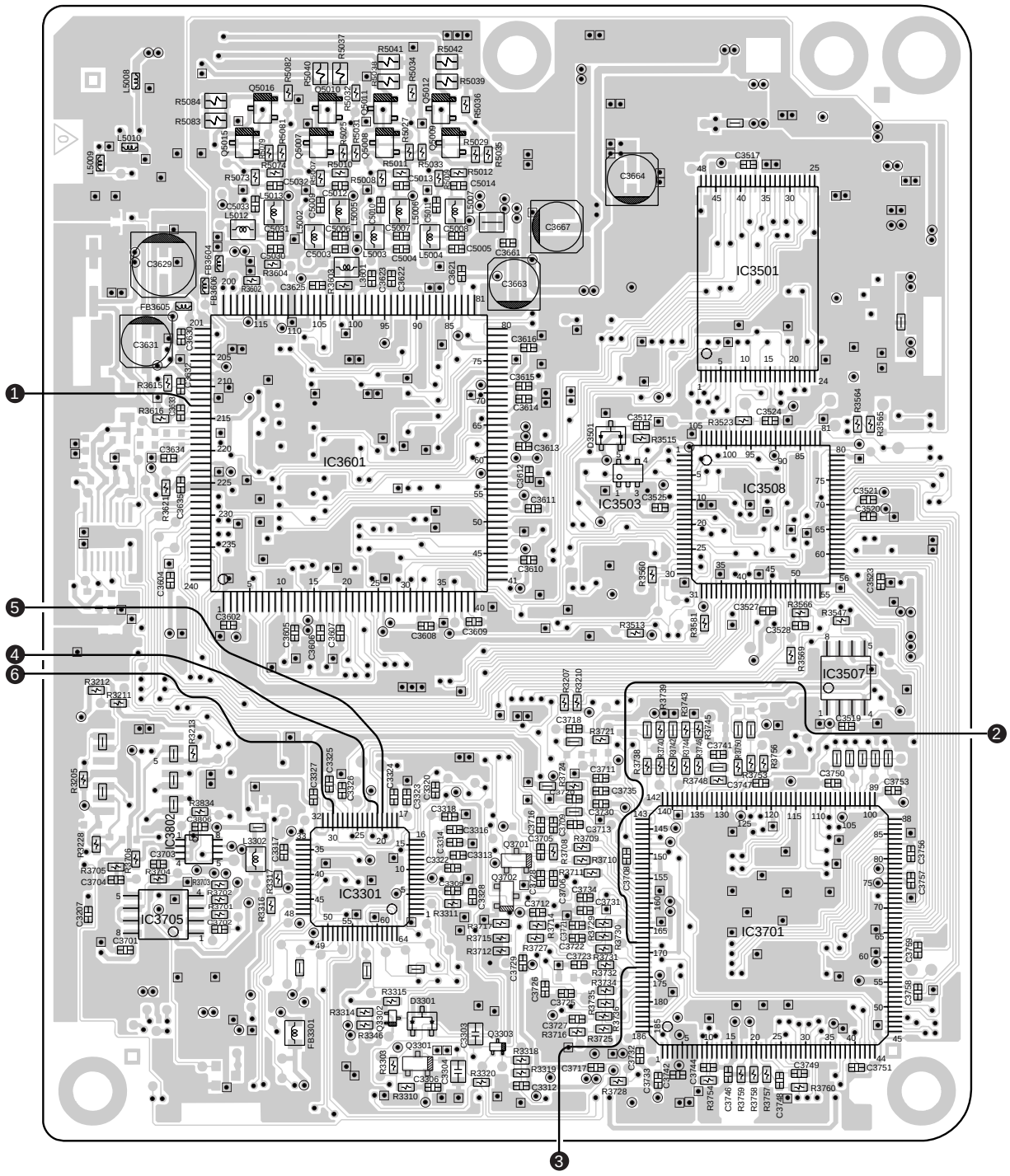


Figure 60 WIRING SIDE OF P.W.BOARD (16/17)

⊙ Through-hole where the top, bottom and +B patterns are connected.
⊡ Through-hole where the top, bottom and ground patterns are connected.
• Through-hole where the top, and bottom patterns are connected.

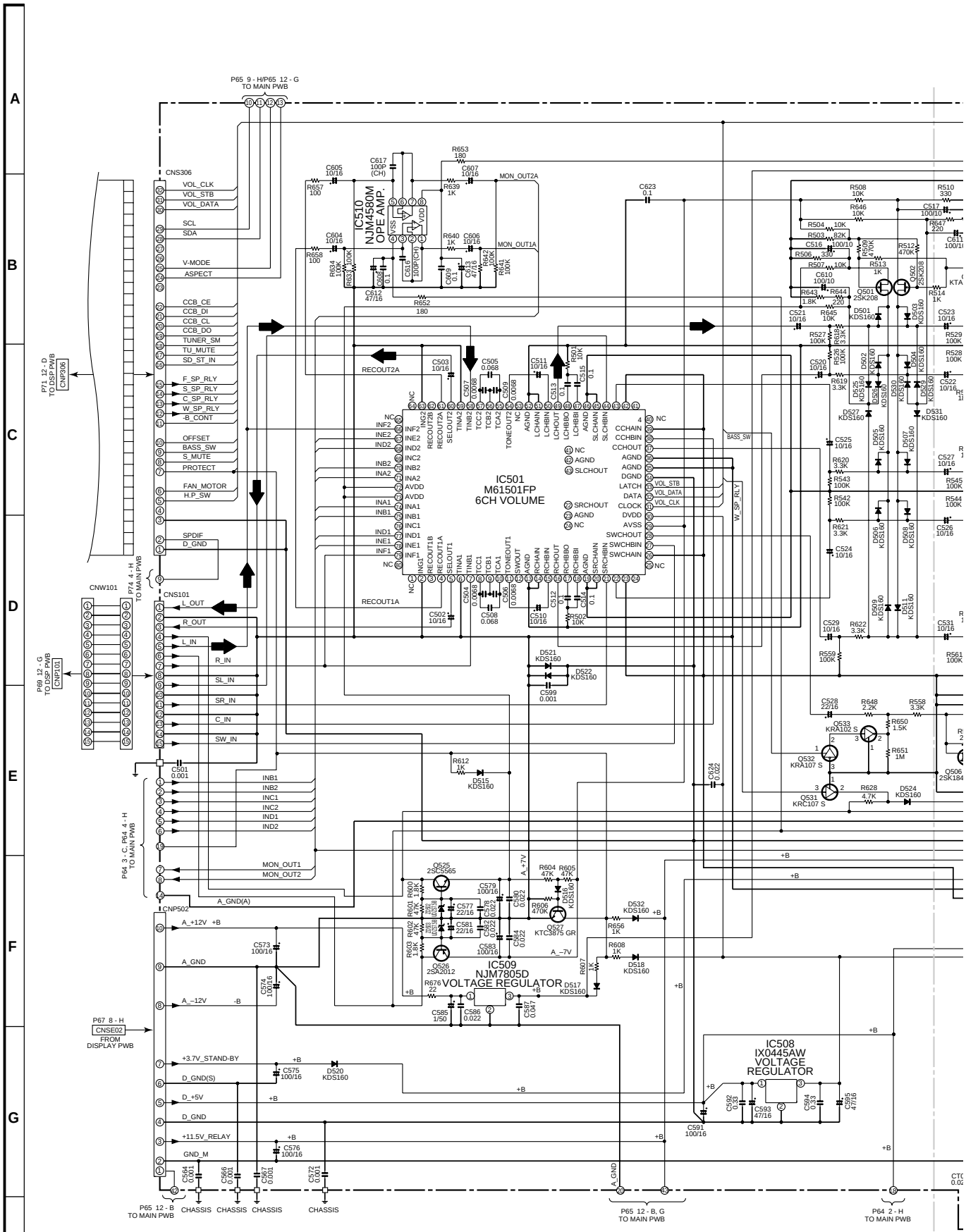
DVD SERVO PWB-G (BOTTOM VIEW)



• The numbers ❶ to ❻ are waveform numbers shown in page 88.

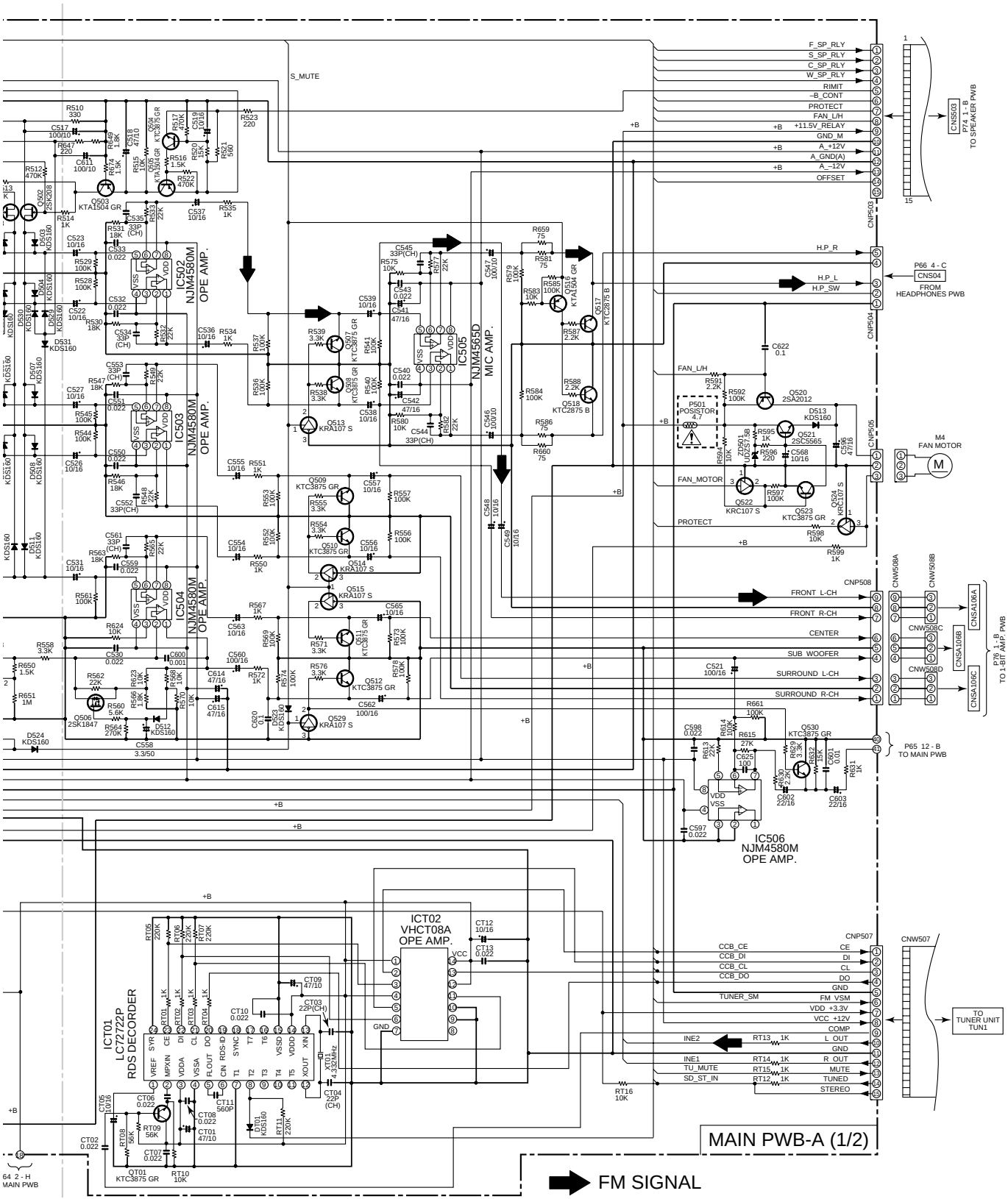
7	8	9	10	11	12

Figure 61 WIRING SIDE OF P.W.BOARD (17/17)



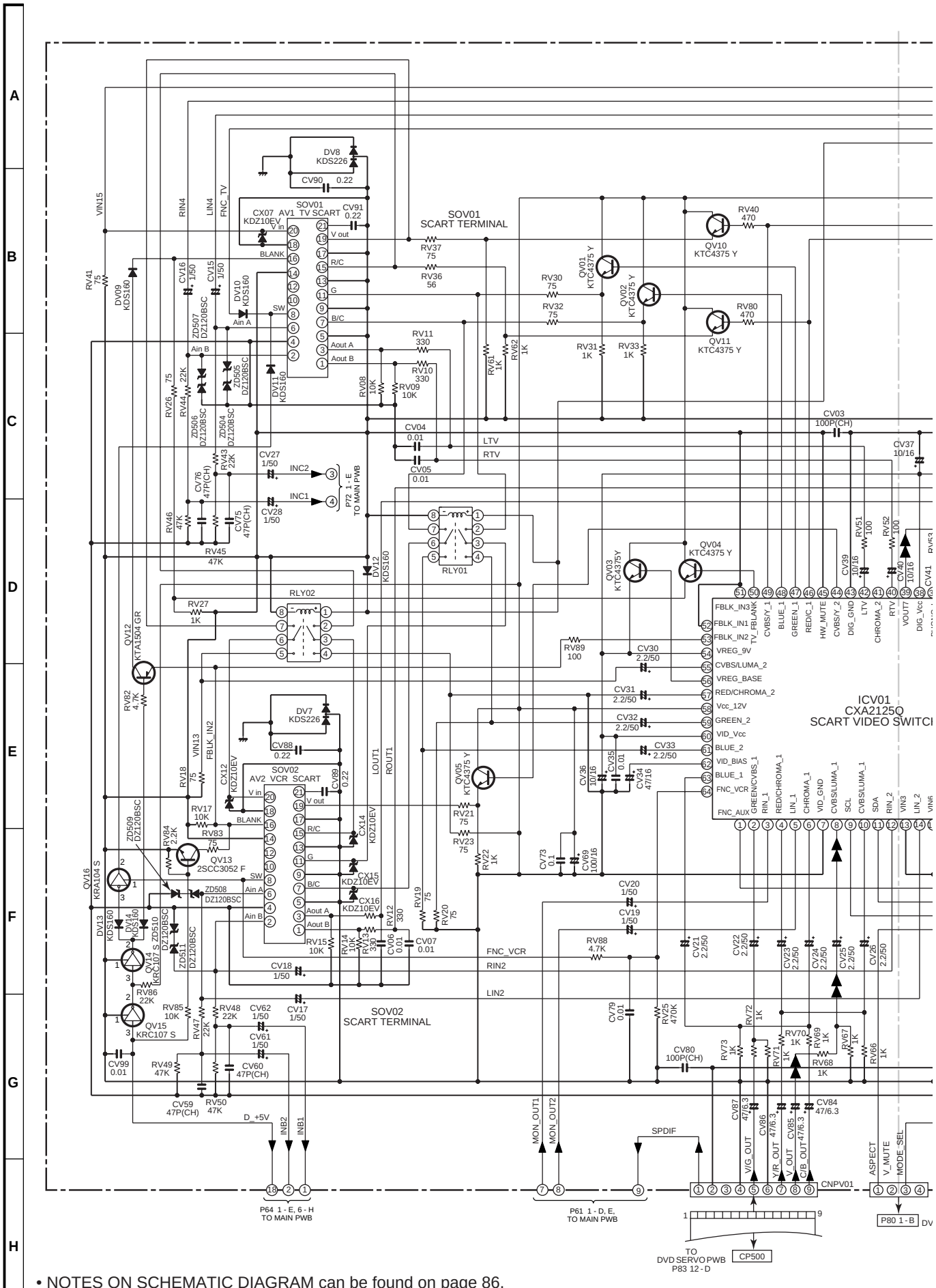
• NOTES ON SCHEMATIC DIAGRAM can be found on page 86.

Figure 62 SCHEMATIC DIAGRAM (1/23)



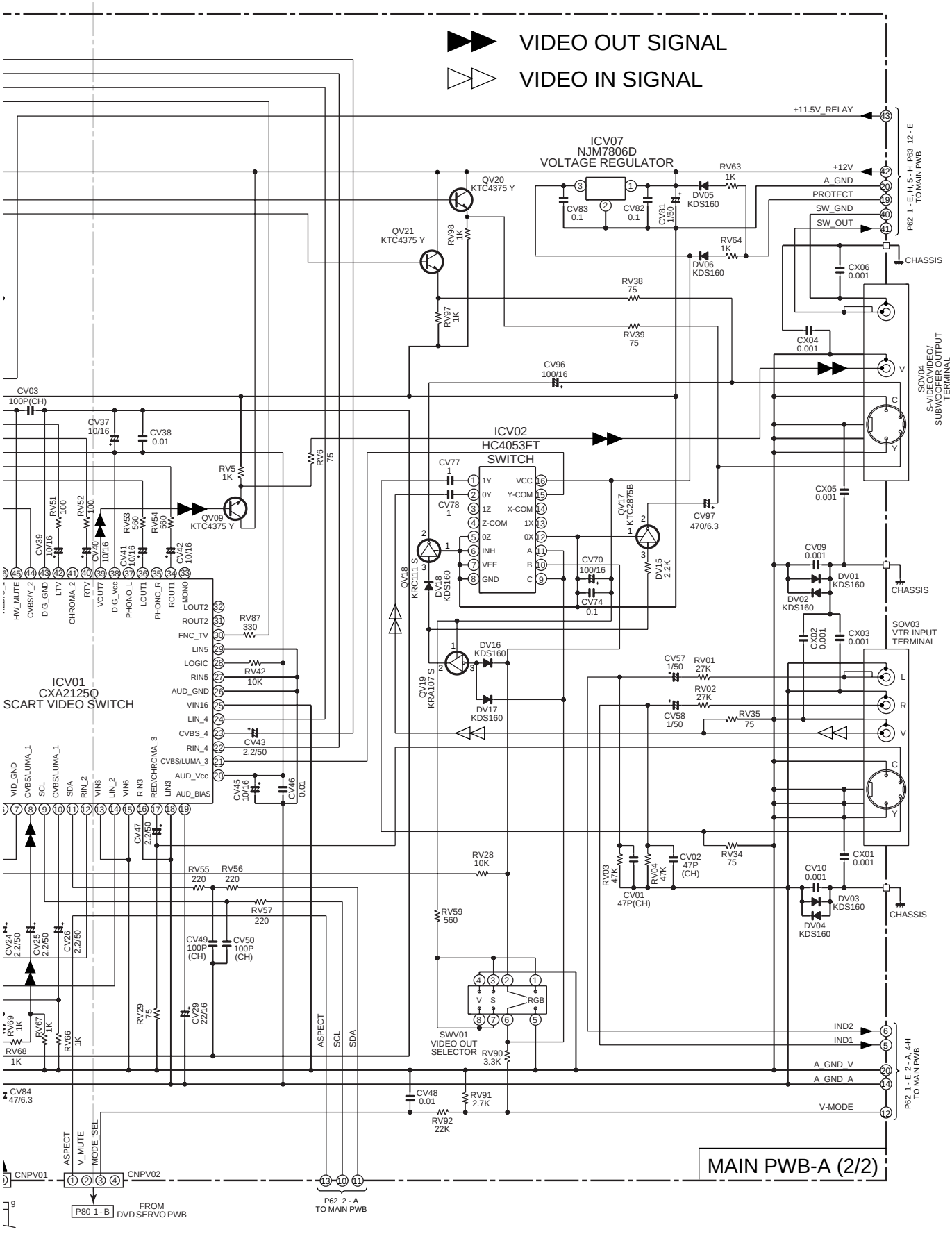
7	8	9	10	11	12

Figure 63 SCHEMATIC DIAGRAM (2/23)



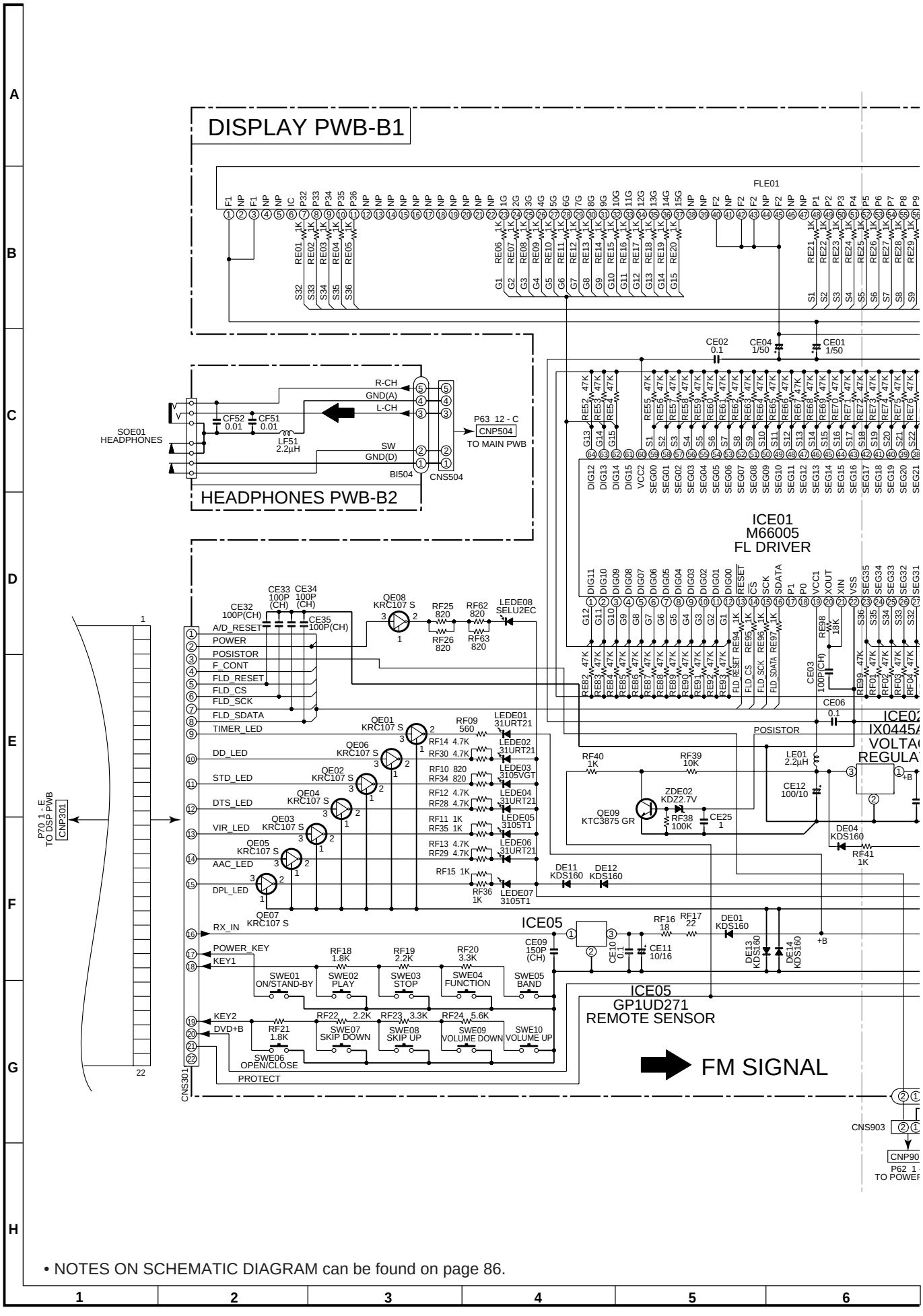
• NOTES ON SCHEMATIC DIAGRAM can be found on page 86.

Figure 64 SCHEMATIC DIAGRAM (3/23)



7	8	9	10	11	12

Figure 65 SCHEMATIC DIAGRAM (4/23)



• NOTES ON SCHEMATIC DIAGRAM can be found on page 86.

Figure 66 SCHEMATIC DIAGRAM (5/23)

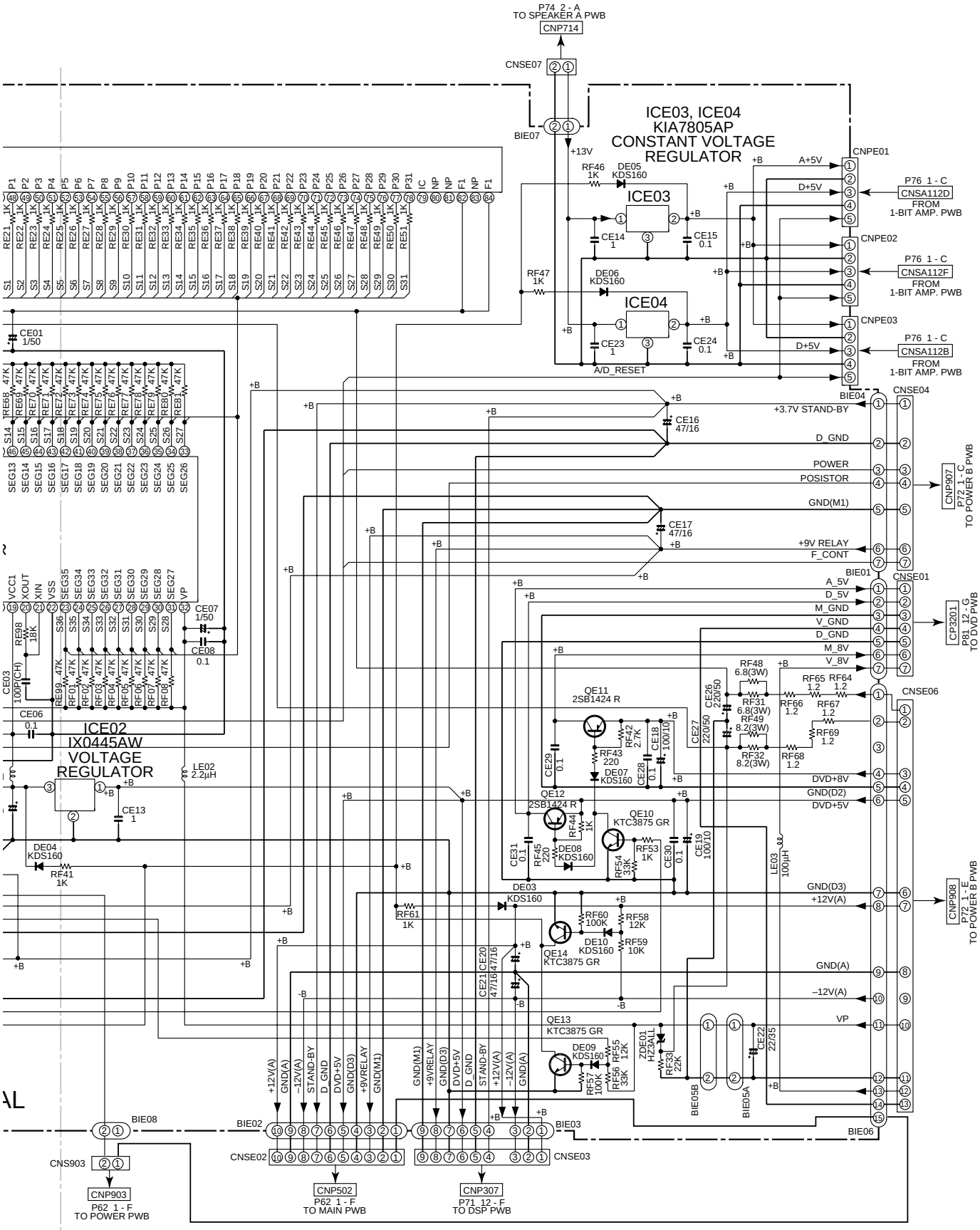
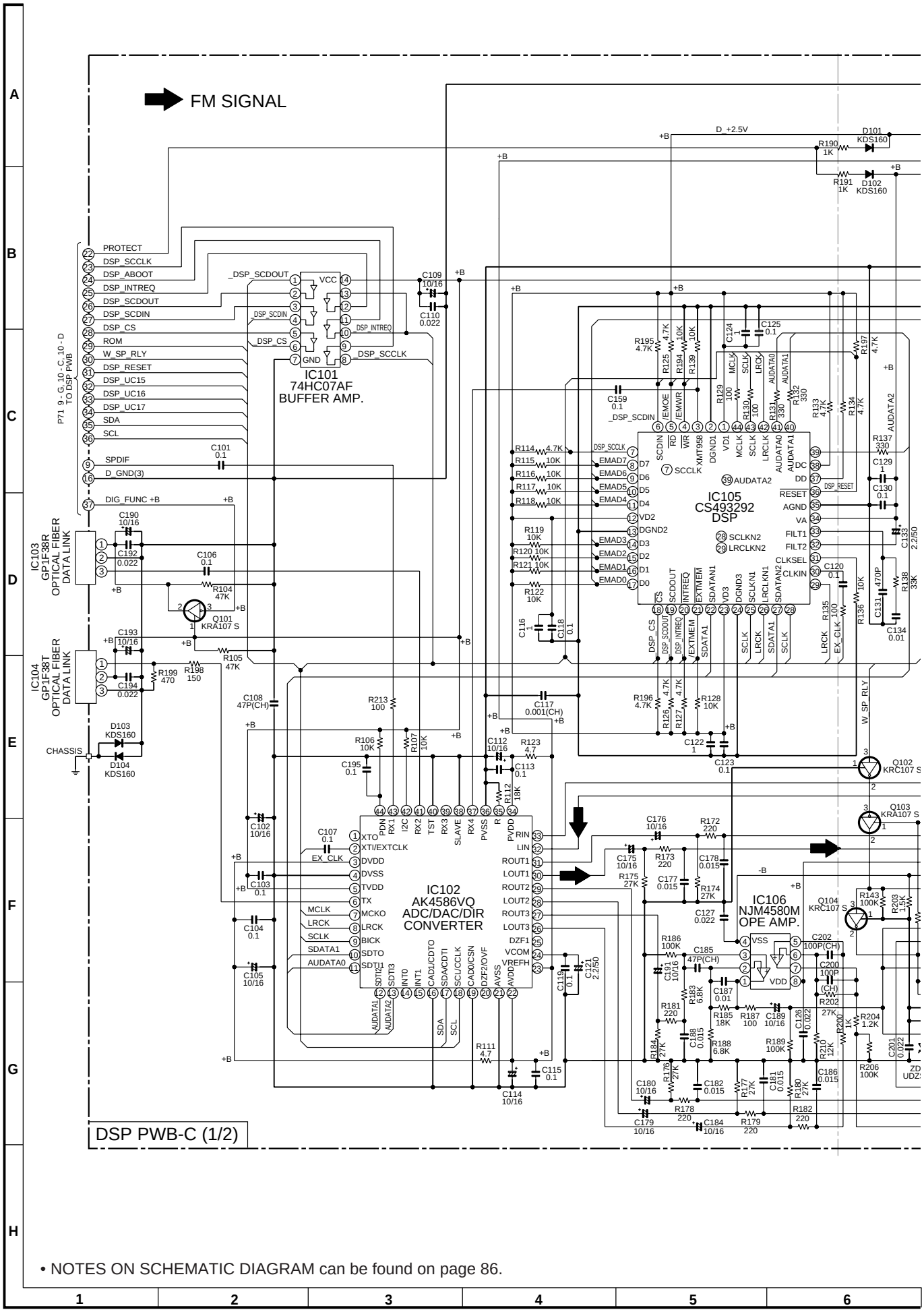
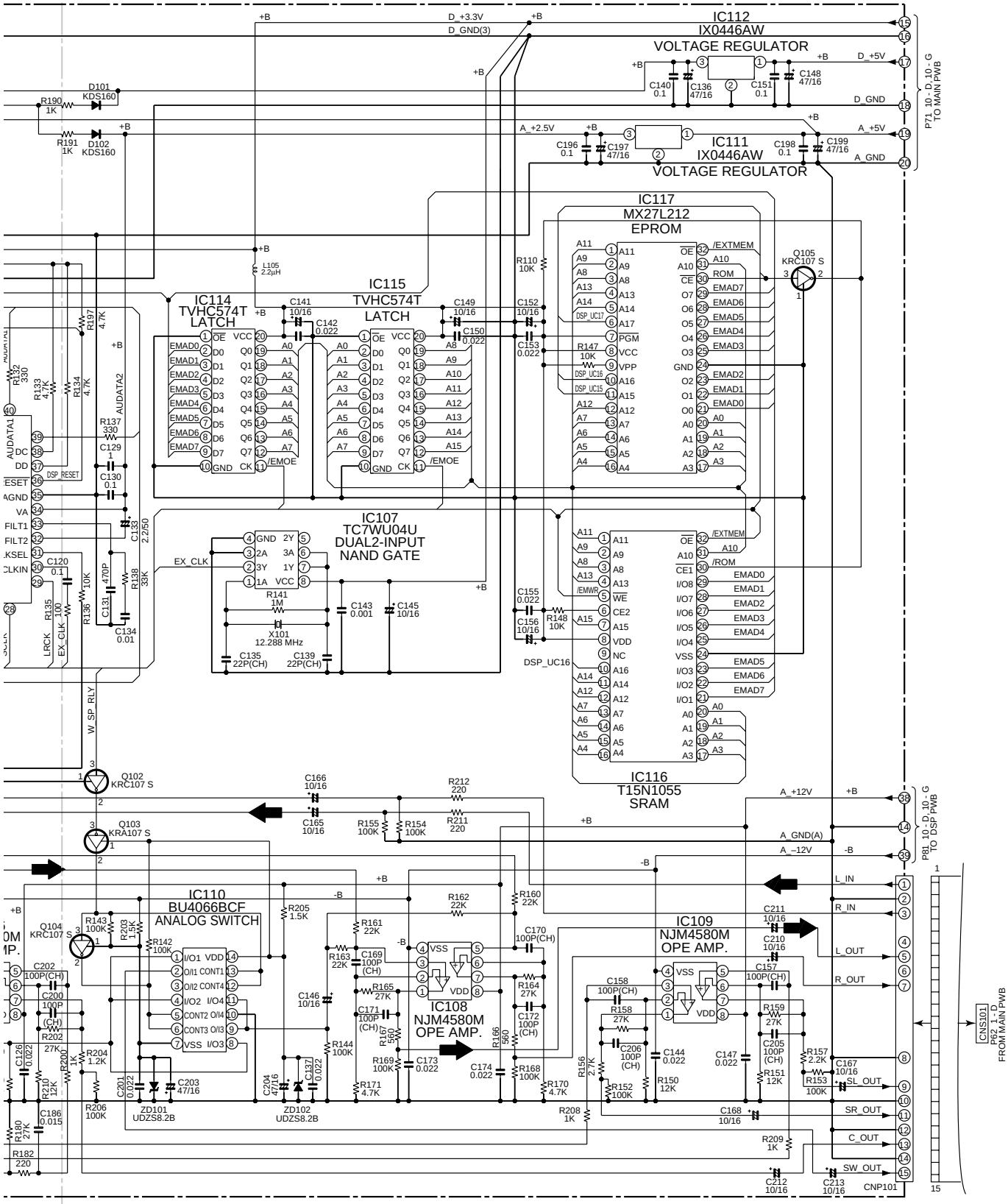


Figure 67 SCHEMATIC DIAGRAM (6/23)



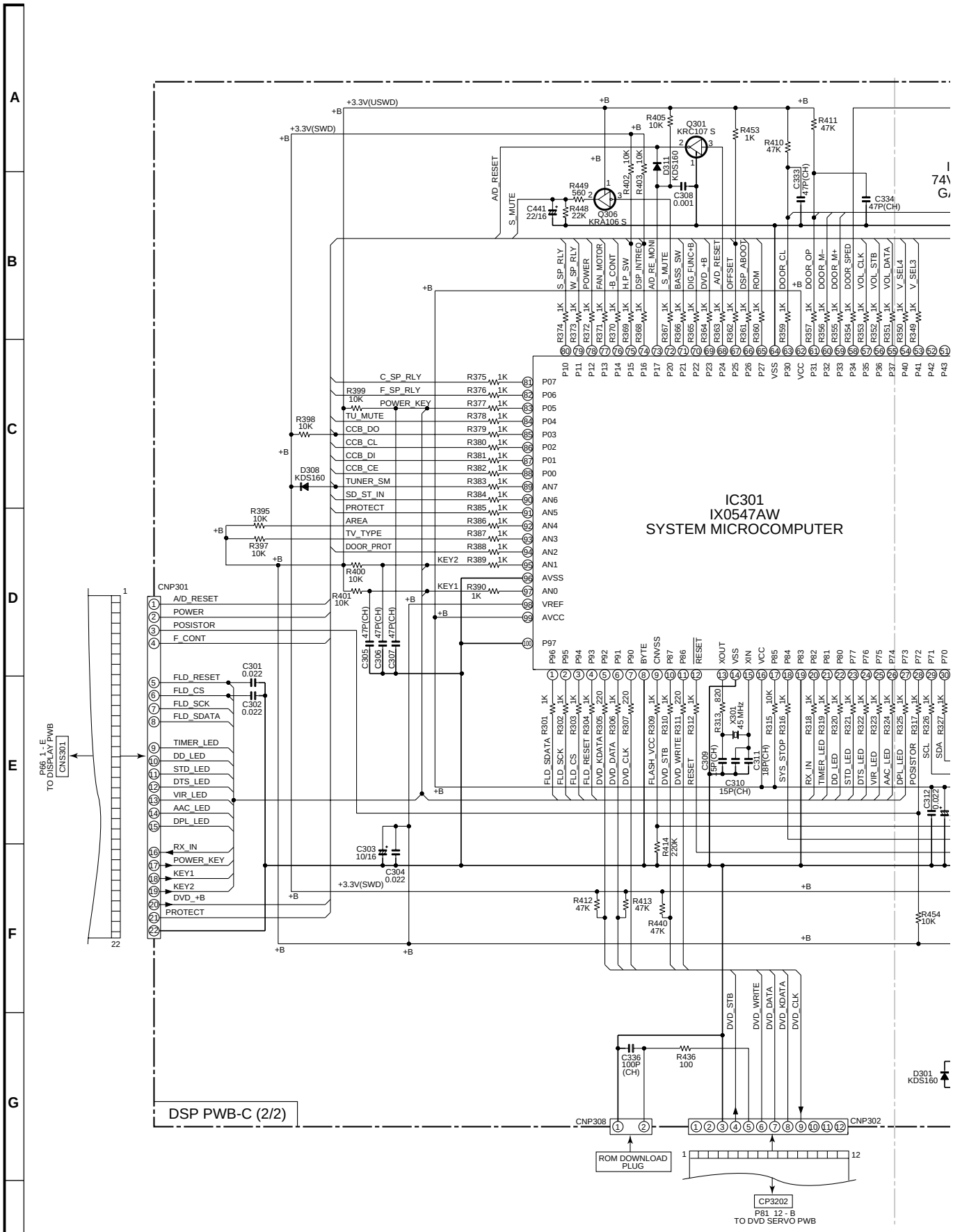
• NOTES ON SCHEMATIC DIAGRAM can be found on page 86.

Figure 68 SCHEMATIC DIAGRAM (7/23)



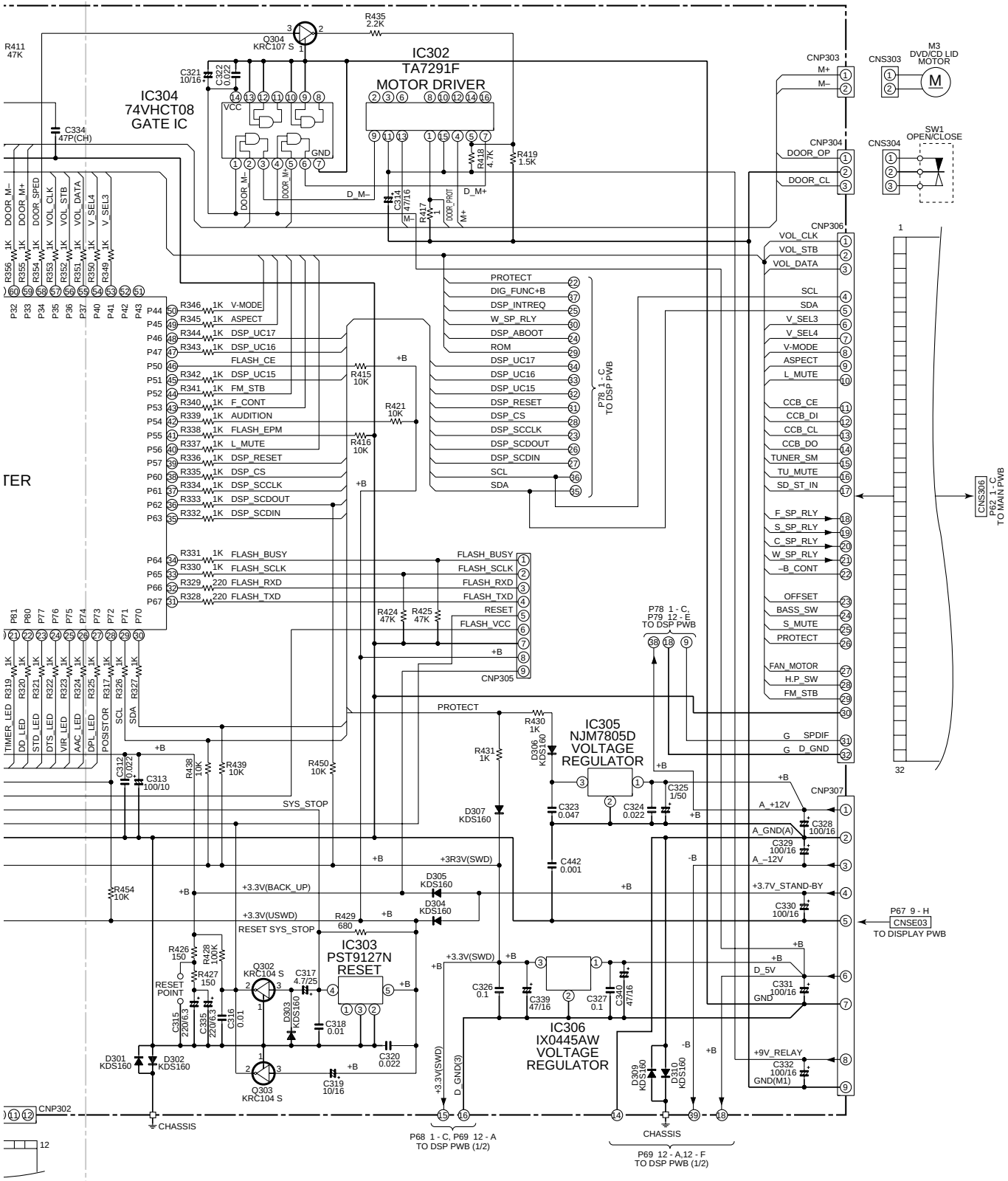
7	8	9	10	11	12

Figure 69 SCHEMATIC DIAGRAM (8/23)



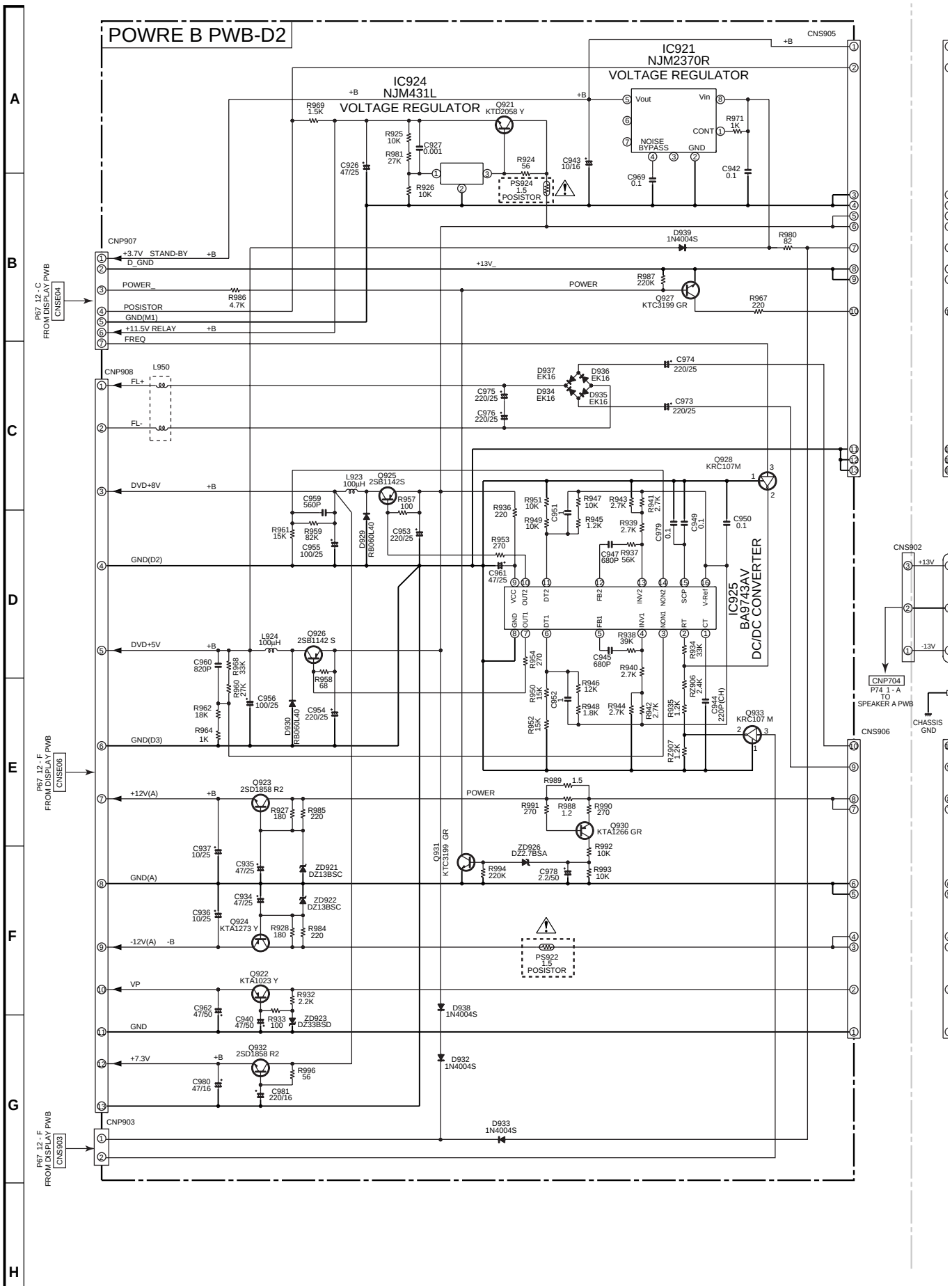
• NOTES ON SCHEMATIC DIAGRAM can be found on page 86.

Figure 70 SCHEMATIC DIAGRAM (9/23)



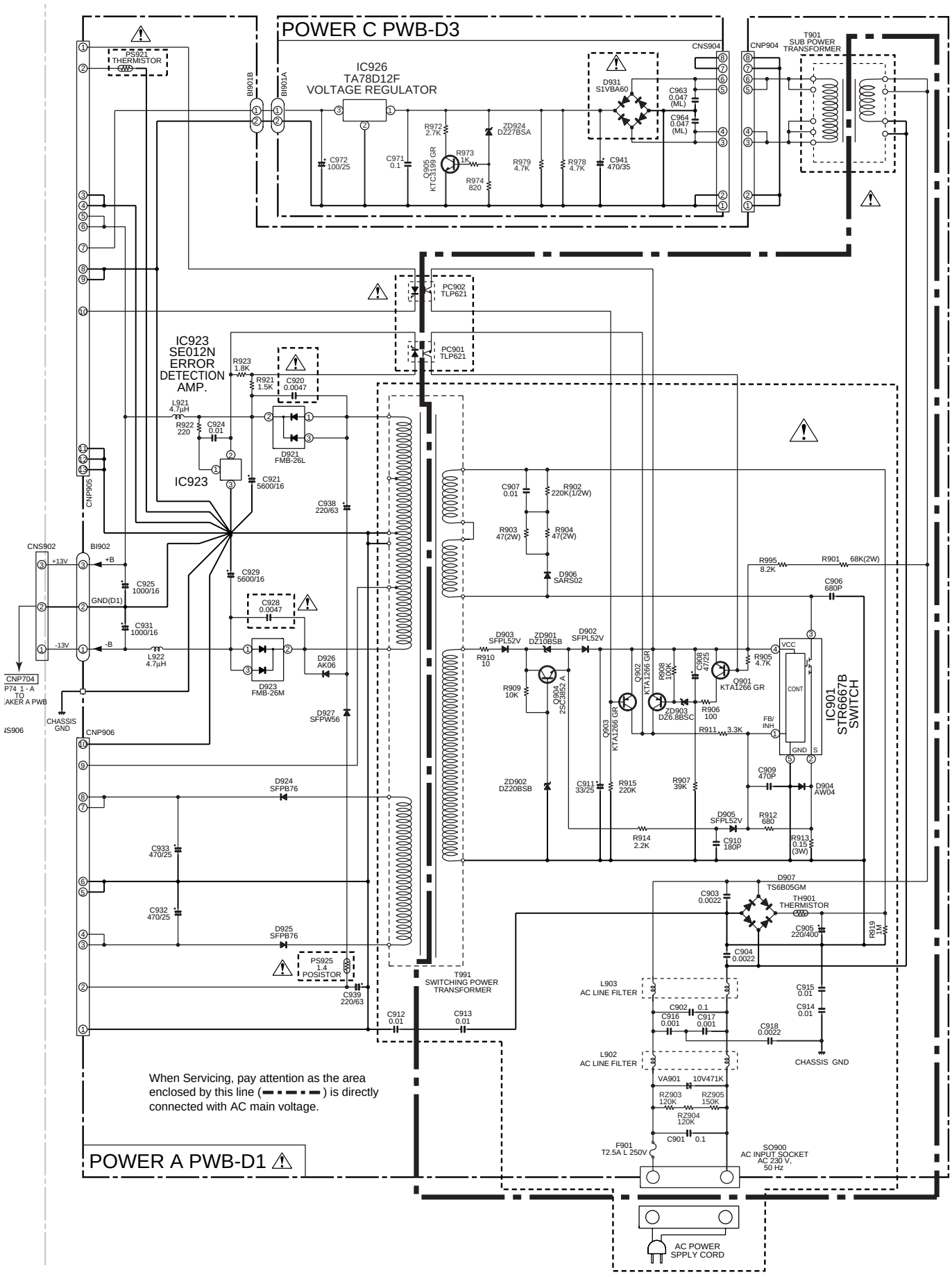
7	8	9	10	11	12

Figure 71 SCHEMATIC DIAGRAM (10/23)



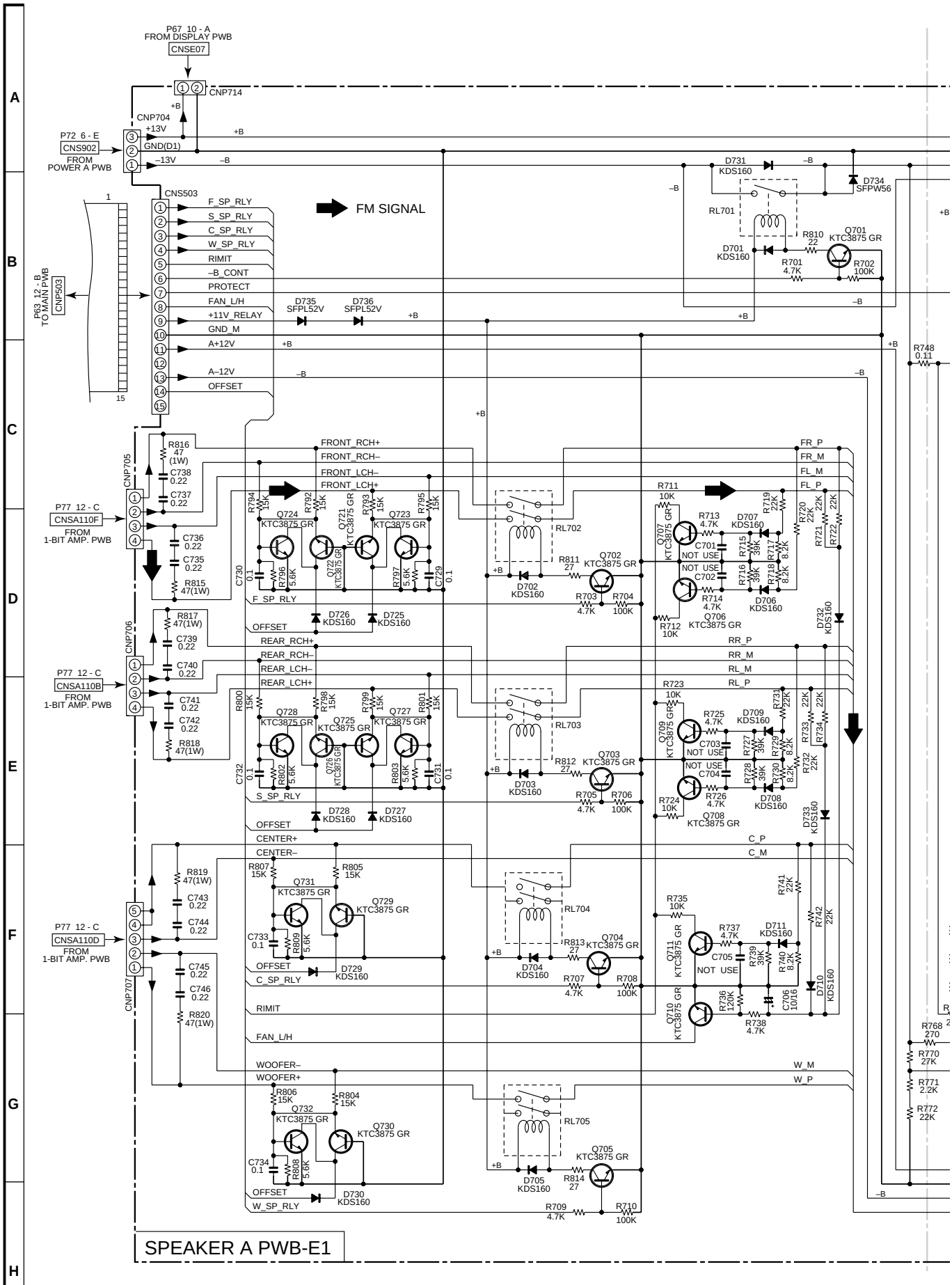
• NOTES ON SCHEMATIC DIAGRAM can be found on page 86.

Figure 72 SCHEMATIC DIAGRAM (11/23)



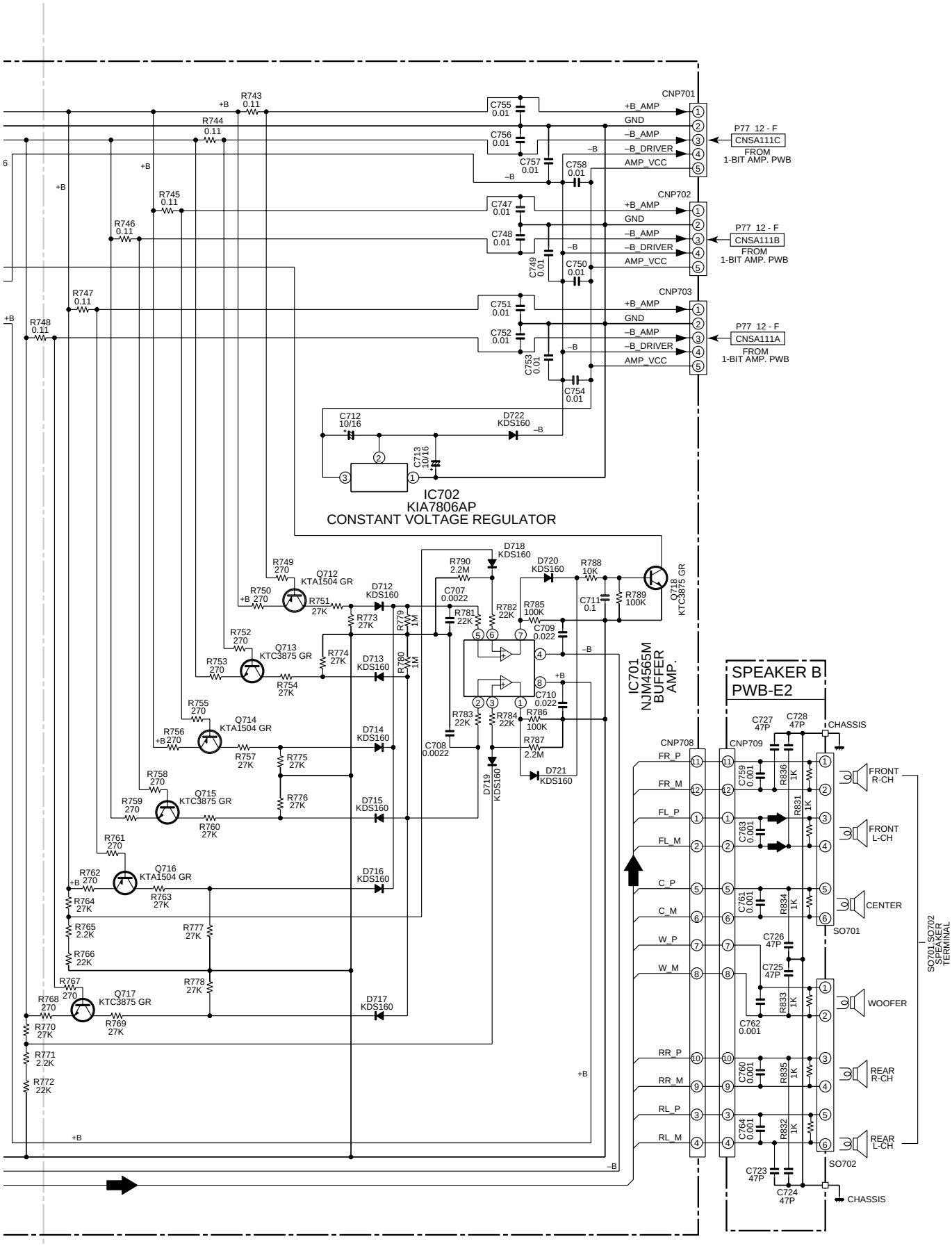
7	8	9	10	11	12

Figure 73 SCHEMATIC DIAGRAM (12/23)



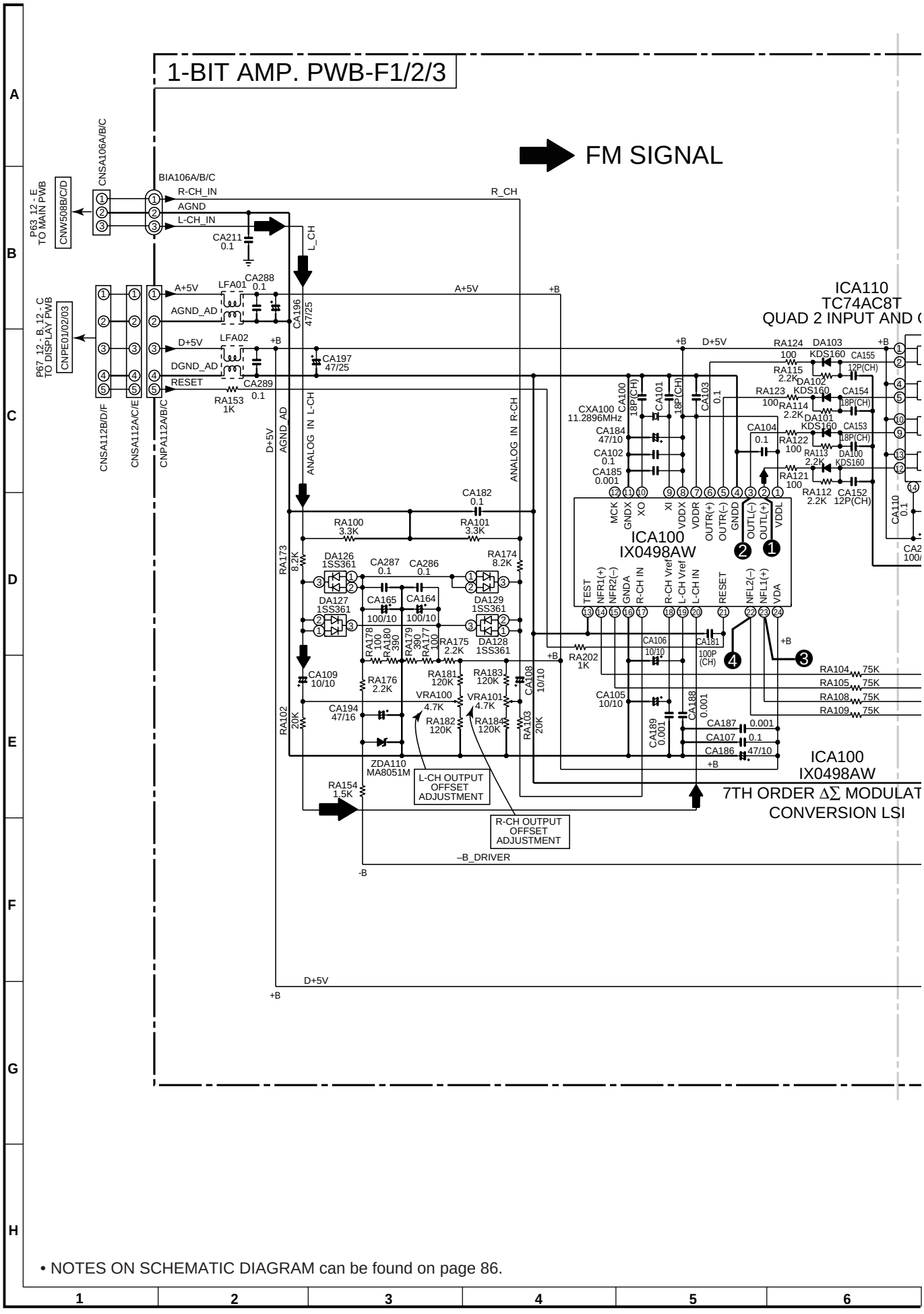
• NOTES ON SCHEMATIC DIAGRAM can be found on page 86.

Figure 74 SCHEMATIC DIAGRAM (13/23)



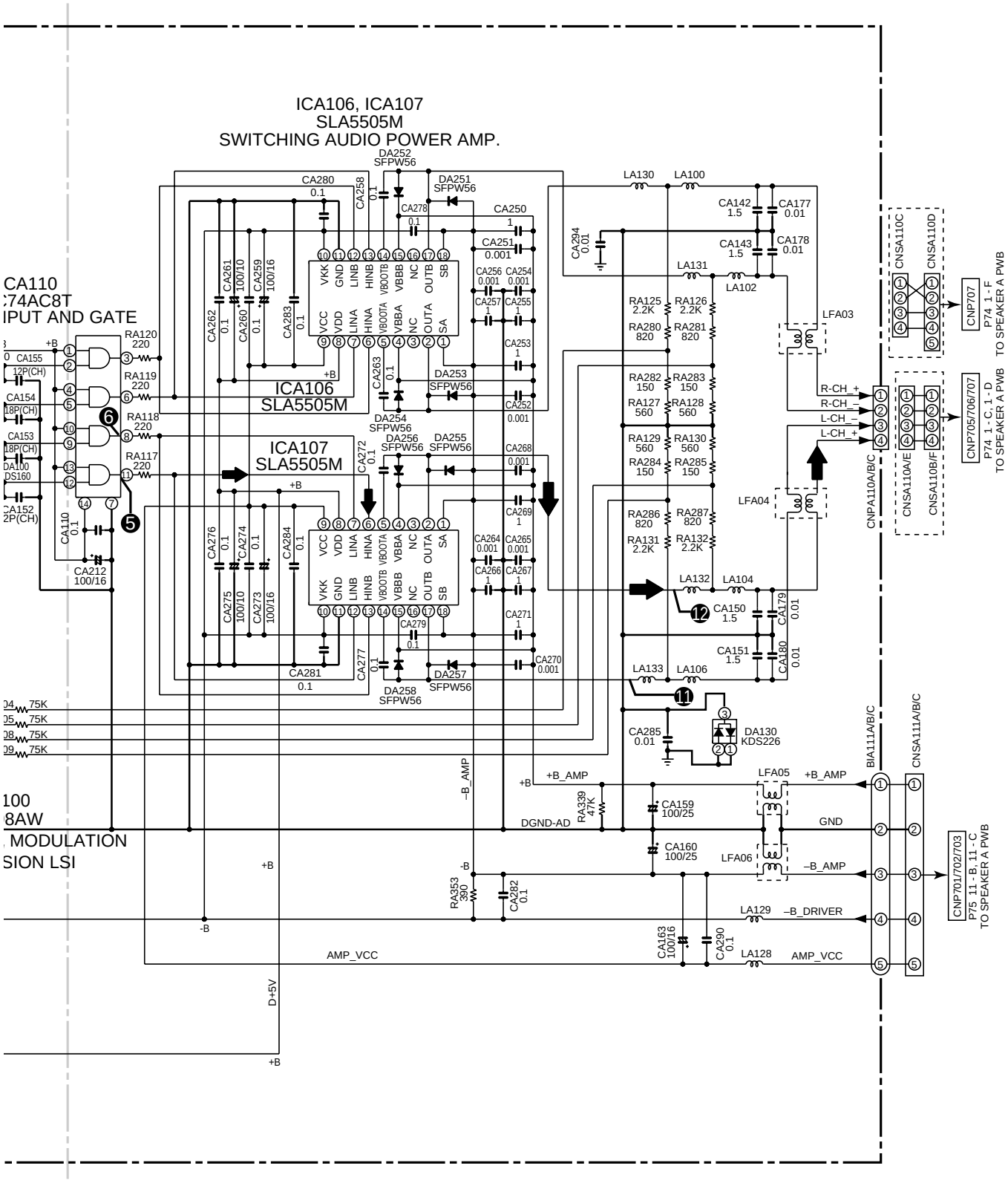
7	8	9	10	11	12

Figure 75 SCHEMATIC DIAGRAM (14/23)



• NOTES ON SCHEMATIC DIAGRAM can be found on page 86.

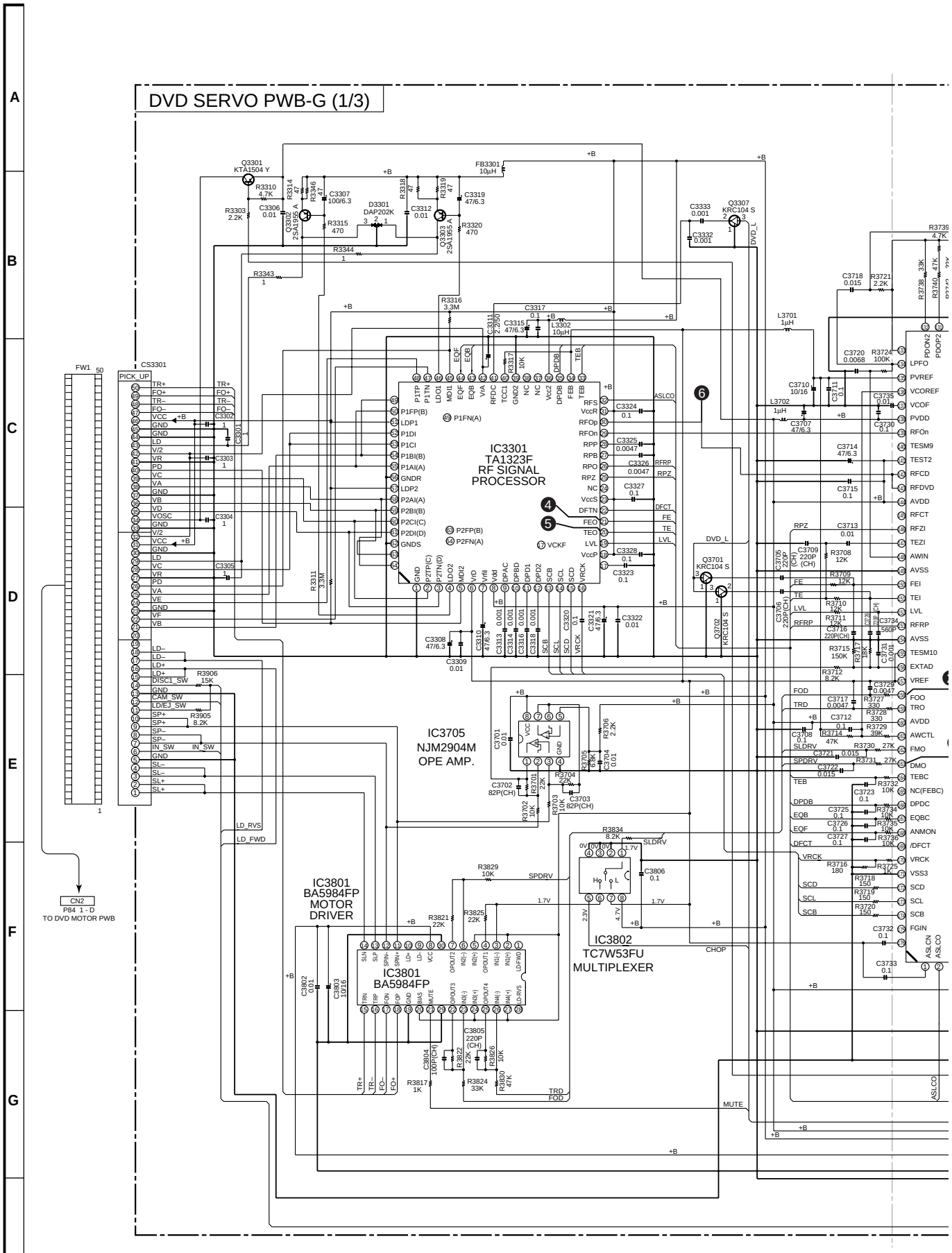
Figure 76 SCHEMATIC DIAGRAM (15/23)



• The numbers ❶ to ❻ , ⓫ , ⓬ are waveform numbers shown in page 87.

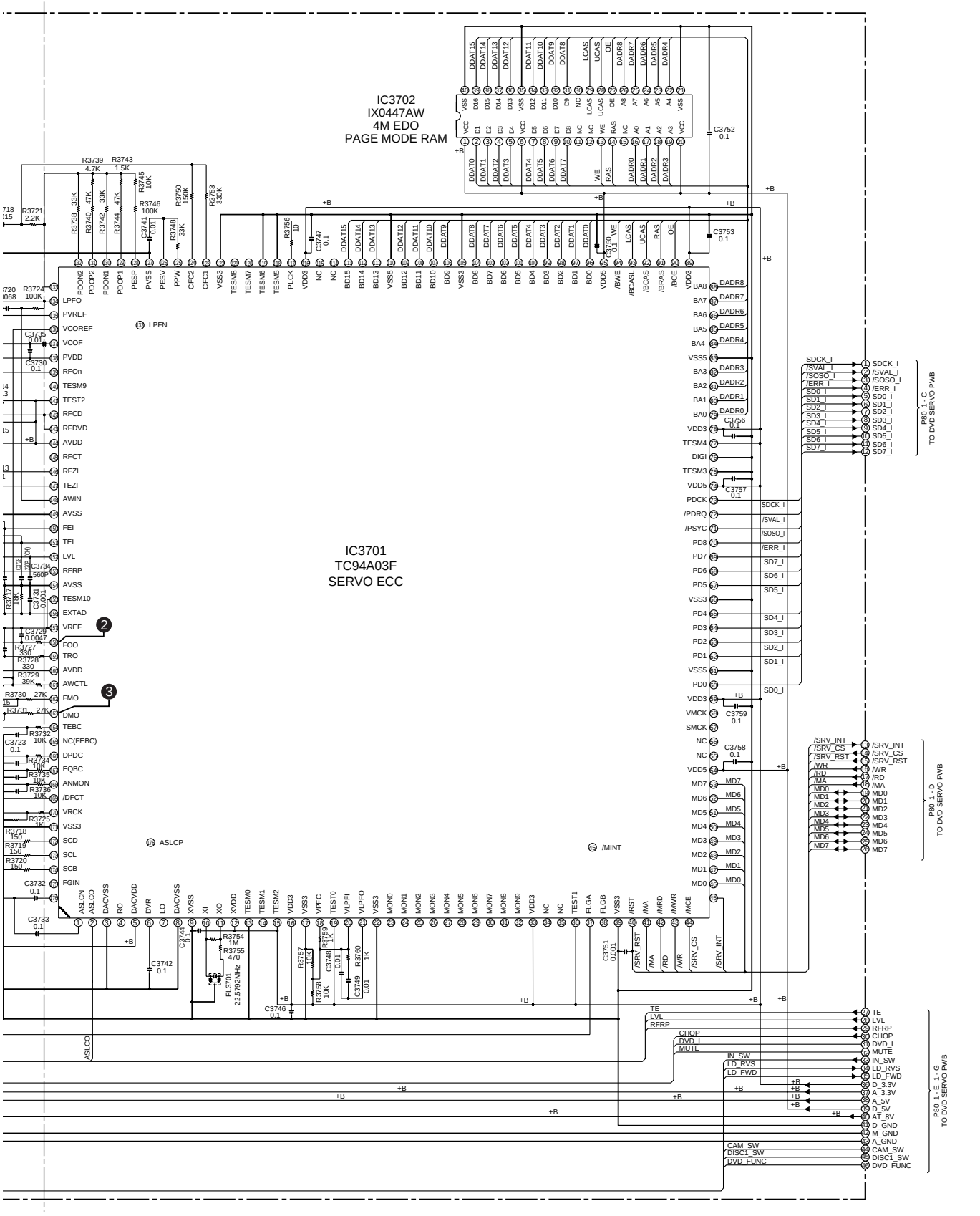
7	8	9	10	11	12

Figure 77 SCHEMATIC DIAGRAM (16/23)



• NOTES ON SCHEMATIC DIAGRAM can be found on page 86.

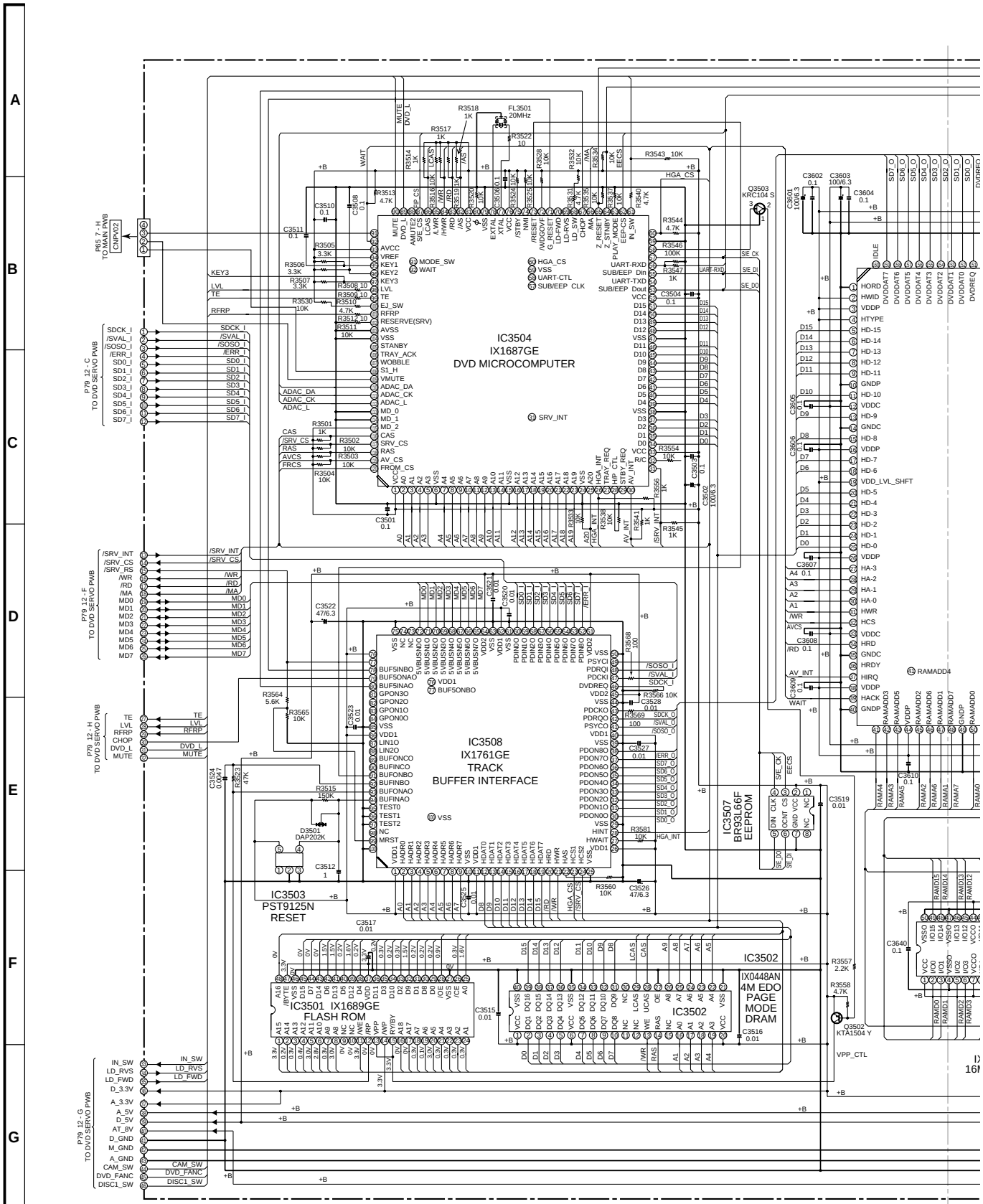
Figure 78 SCHEMATIC DIAGRAM (17/23)



• The numbers ❷ to ❻ are waveform numbers shown in page 88.

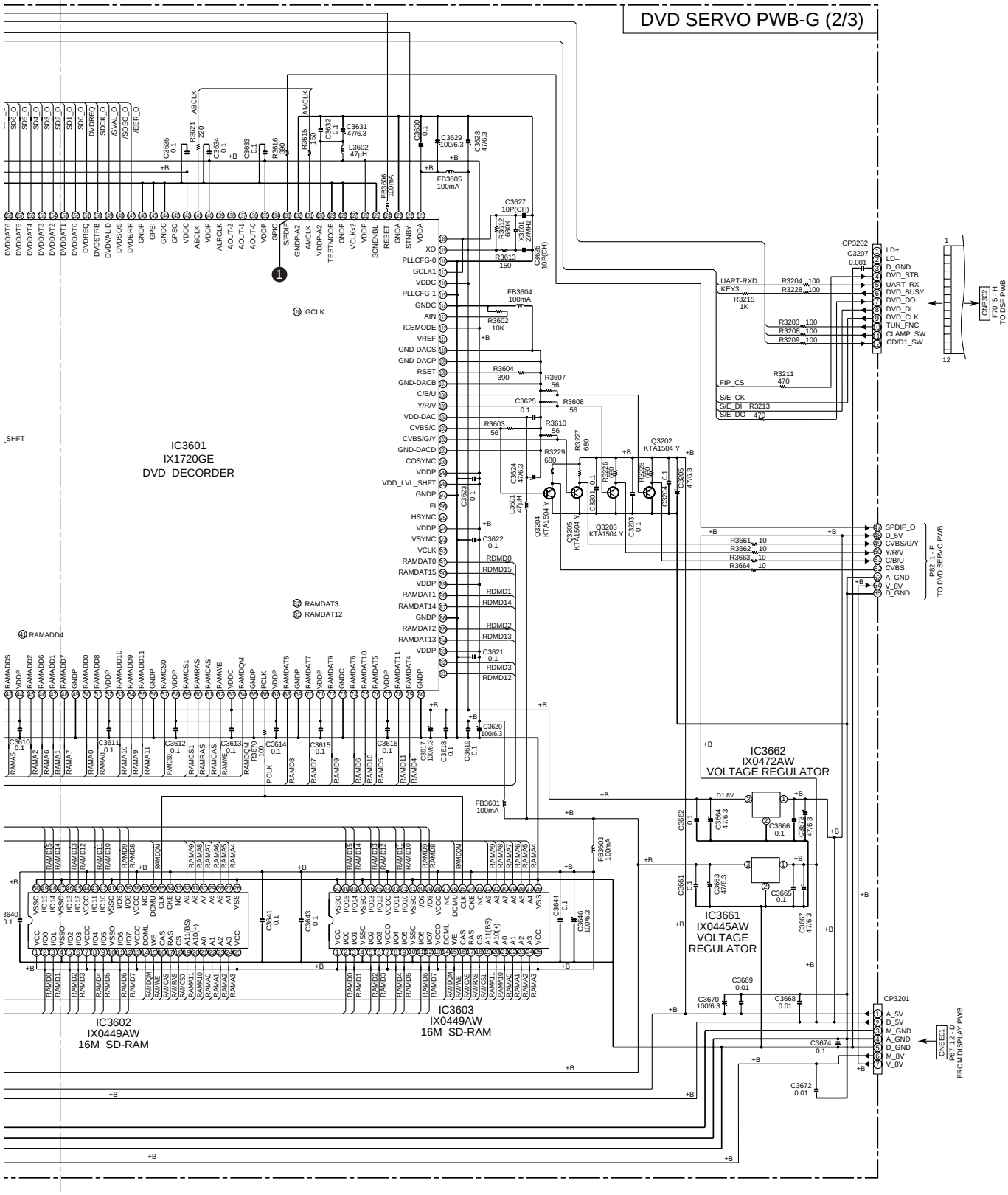
7	8	9	10	11	12

Figure 79 SCHEMATIC DIAGRAM (18/23)



• NOTES ON SCHEMATIC DIAGRAM can be found on page 86.

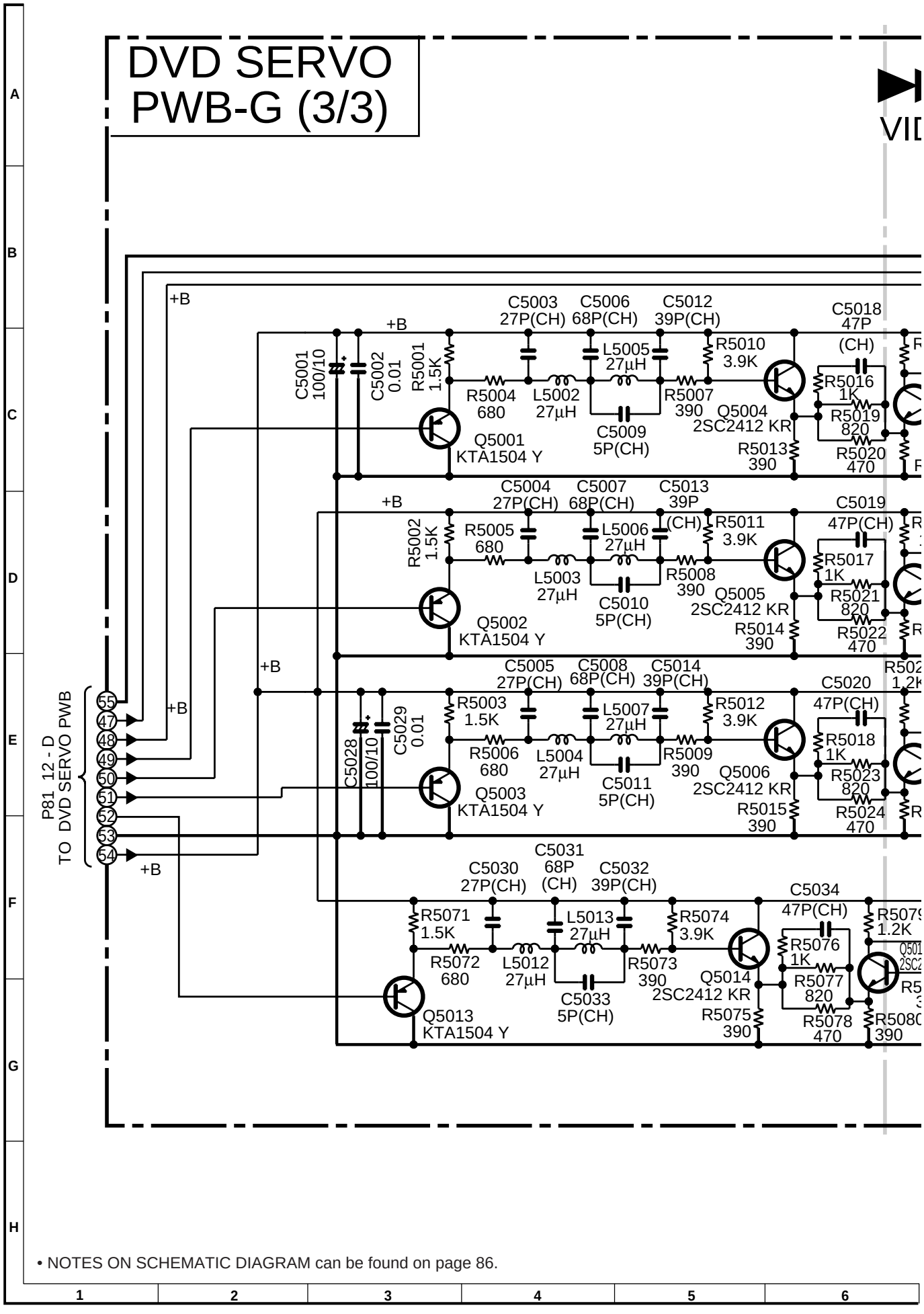
Figure 80 SCHEMATIC DIAGRAM (19/23)



• The number ❶ are waveform number shown in page 88.

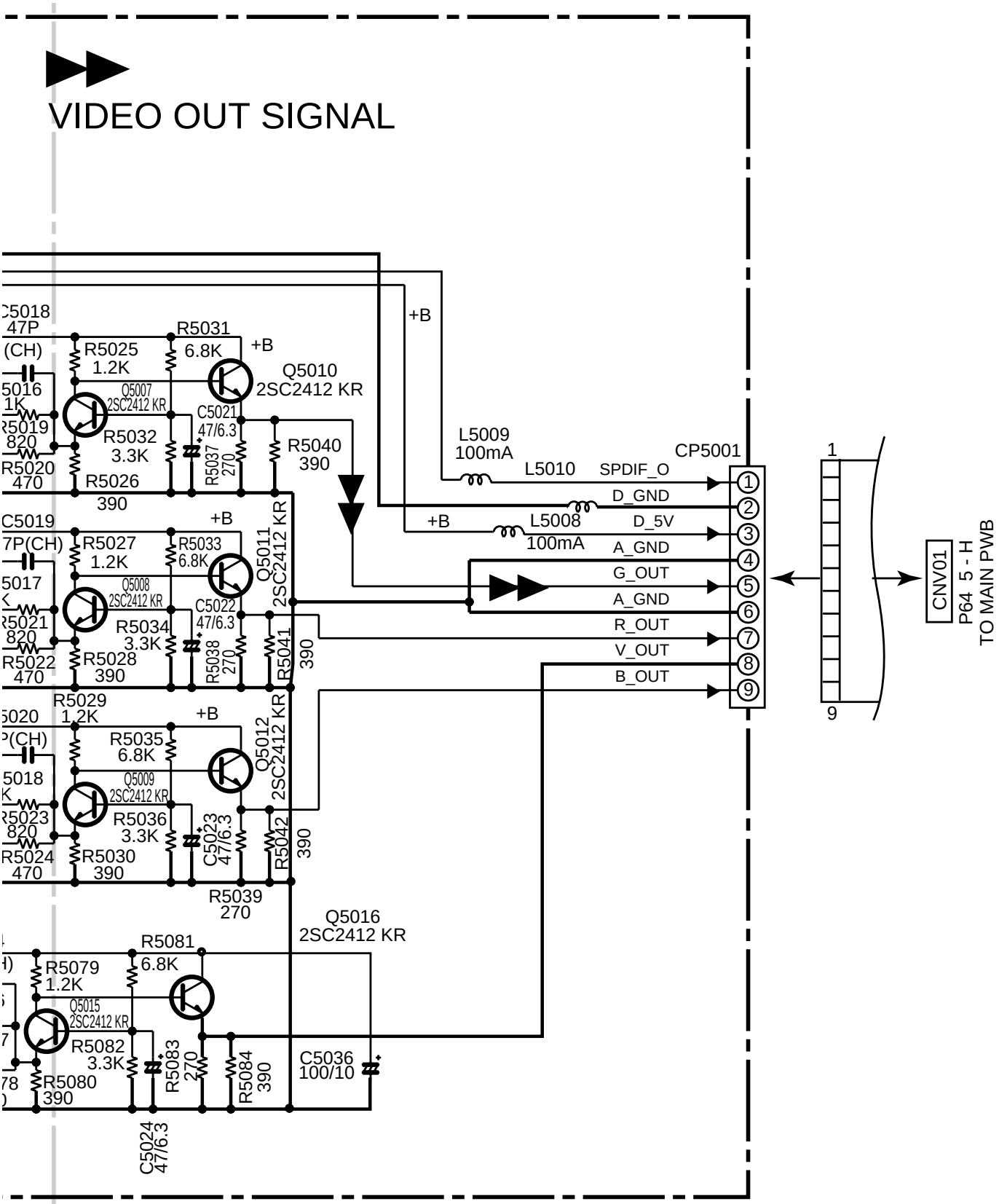
7	8	9	10	11	12

Figure 81 SCHEMATIC DIAGRAM (20/23)



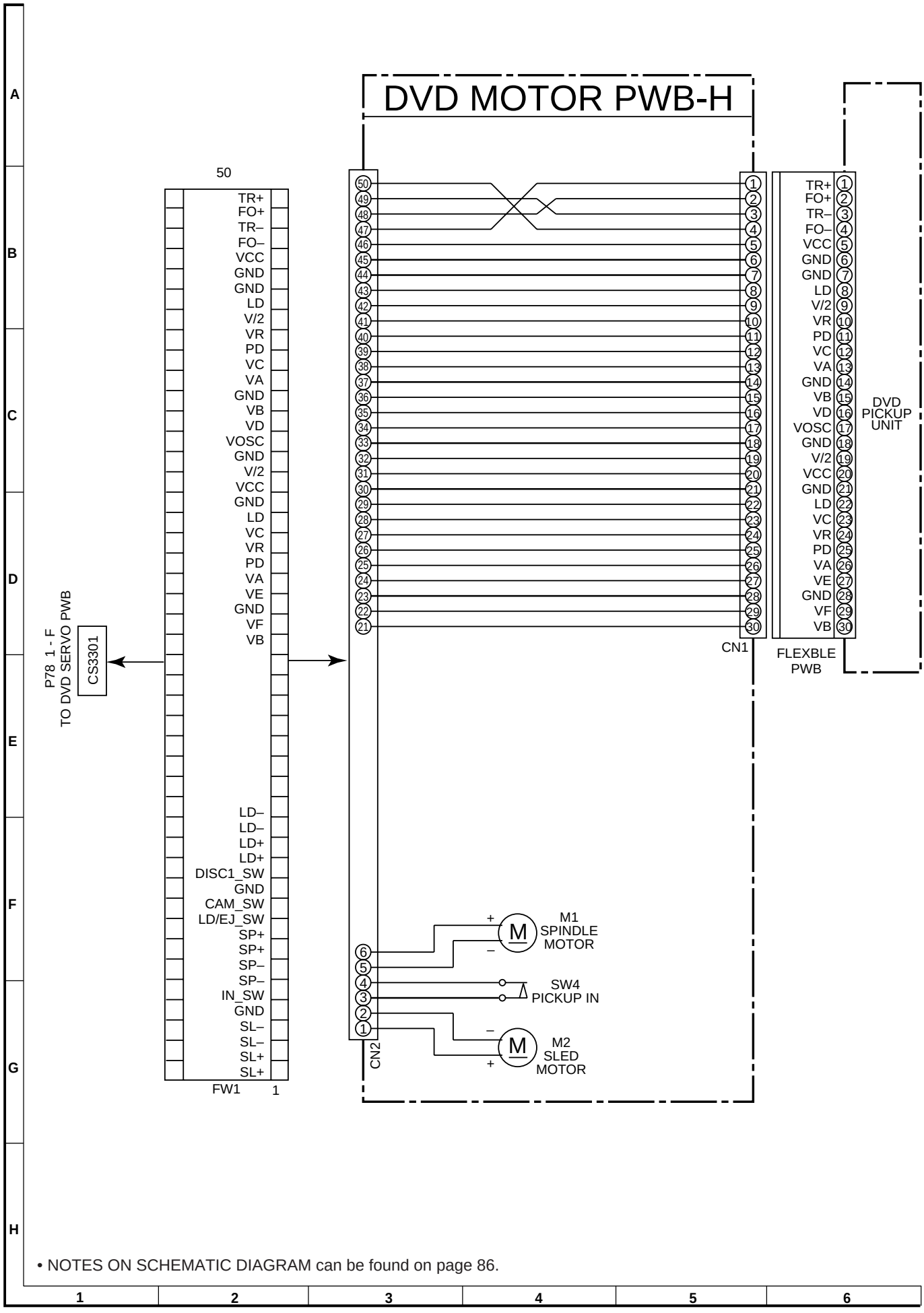
• NOTES ON SCHEMATIC DIAGRAM can be found on page 86.

Figure 82 SCHEMATIC DIAGRAM (21/23)



7	8	9	10	11	12

Figure 83 SCHEMATIC DIAGRAM (22/23)



• NOTES ON SCHEMATIC DIAGRAM can be found on page 86.

Figure 84 SCHEMATIC DIAGRAM (23/23)

VOLTAGE

IC3701

PIN NO.	VOLTAGE	PIN NO.	VOLTAGE
1	1.6 V	89	3.3 V
2	0 V	90	3.0 V
3	0 V	91	4.7 V
4	1.6 V	92	4.6 V
5	3.3 V	93	4.6 V
6	0 V	94	4.7 V
7	1.6 V	95	4.7 V
8	0 V	96	0 V
9	0 V	97	0 V
10	1.5 V	98	0.6 V
11	1.5 V	99	0 V
12	3.3 V	100	1.2 V
13	0 V	101	0 V
14	3.3 V	102	0 V
15	3.3 V	103	1.2 V
16	3.3 V	104	2.5 V
17	0 V	105	0 V
18	1.6 V	106	2.7 V
19	3.3 V	107	2.5 V
20	0 V	108	2.5 V
21	1.2 V	109	2.5 V
22	0 V	110	0 V
23	0 V	111	2.5 V
24	0 V	112	2.5 V
25	0 V	113	2.5 V
26	0 V	114	—
27	1.7 V	115	—
28	0 V	116	3.3 V
29	0 V	117	0 V
30	0 V	118	0 V
31	0 V	119	0 V
32	1.7 V	120	—
33	3.3 V	121	—
34	—	122	0 V
35	—	123	0.8 V
36	3.3 V	124	1.5 V
37	4.7 V	125	1.6 V
38	4.7 V	126	1.6 V
39	0 V	127	0 V
40	4.7 V	128	1.6 V
41	3.3 V	129	1.6 V
42	3.3 V	130	1.6 V
43	0.9 V	131	1.6 V
44	3.3 V	132	1.6 V
45	0.2 V	133	1.6 V
46	0 V	134	2.9 V
47	0 V	135	1.6 V
48	0.1 V	136	1.6 V
49	0 V	137	0.6 V
50	0 V	138	3.3 V
51	0 V	139	1.5 V
52	0 V	140	—
53	0 V	141	3.3 V
54	4.7 V	142	1.5 V
55	—	143	1.5 V
56	—	144	3.3 V
57	0 V	145	—
58	0 V	146	1.6 V
59	3.3 V	147	1.6 V
60	0 V	148	1.0 V
61	0 V	149	0 V
62	0 V	150	1.6 V
63	0 V	151	1.6 V
64	0 V	152	1.6 V
65	0 V	153	1.6 V
66	0 V	154	0 V
67	0 V	155	1.6 V
68	0 V	156	0 V
69	0 V	157	1.6 V
70	4.6 V	158	1.6 V
71	4.6 V	159	1.6 V
72	2.3 V	160	3.3 V
73	4.6 V	161	1.6 V
74	4.6 V	162	1.6 V
75	0 V	163	1.6 V
76	0 V	164	1.6 V
77	0 V	165	1.6 V
78	3.3 V	166	1.6 V
79	0 V	167	1.5 V
80	0 V	168	1.5 V
81	0 V	169	2.4 V
82	0 V	170	1.5 V
83	0 V	171	0 V
84	0 V	172	0 V
85	0 V	173	0 V
86	0 V	174	0 V
87	0 V	175	—
88	0 V	176	1.6 V

IC3601

PIN NO.	VOLTAGE	PIN NO.	VOLTAGE
1	0 V	81	2.5 V
2	3.3 V	82	0.5 V
3	3.3 V	83	3.3 V
4	3.3 V	84	1.2 V
5	0 V	85	0.5 V
6	1.6 V	86	0 V
7	0.2 V	87	0.2 V
8	0.1 V	88	1.6 V
9	0.2 V	89	3.3 V
10	0 V	90	0.7 V
11	1.5 V	91	1.7 V
12	1.8 V	92	1.6 V
13	0.2 V	93	3.6 V
14	0 V	94	3.3 V
15	0.2 V	95	3.0 V
16	3.3 V	96	1.6 V
17	2.8 V	97	0 V
18	1.6 V	98	3.3 V
19	3.3 V	99	0.3 V
20	1.6 V	100	0.3 V
21	1.6 V	101	0 V
22	1.6 V	102	0.3 V
23	1.6 V	103	0.3 V
24	1.6 V	104	2.2 V
25	0 V	105	0.3 V
26	3.3 V	106	0.9 V
27	0.3 V	107	0 V
28	0.3 V	108	1.2 V
29	0.3 V	109	0 V
30	1.6 V	110	0 V
31	3.3 V	111	0.6 V
32	3.3 V	112	3.3 V
33	1.7 V	113	0 V
34	0.9 V	114	0 V
35	0 V	115	0 V
36	0 V	116	1.7 V
37	3.3 V	117	1.5 V
38	3.3 V	118	0 V
39	0 V	119	1.6 V
40	0 V	120	1.5 V
41	0.1 V	121	1.7 V
42	0.1 V	122	3.3 V
43	0.1 V	123	0 V
44	3.3 V	124	3.3 V
45	0.1 V	125	0 V
46	0.1 V	126	3.3 V
47	0.1 V	127	1.6 V
48	0.1 V	128	0 V
49	0 V	129	0 V
50	0.1 V	130	3.3 V
51	0 V	131	1.6 V
52	3.3 V	132	0 V
53	1.7 V	133	1.6 V
54	0.1 V	134	2.8 V
55	0 V	135	3.3 V
56	0 V	136	0 V
57	0 V	137	0 V
58	3.3 V	138	0 V
59	3.3 V	139	1.6 V
60	3.3 V	140	3.3 V
61	3.3 V	141	1.6 V
62	3.3 V	142	1.7 V
63	1.7 V	143	0 V
64	0 V	144	0 V
65	0 V	145	0 V
66	1.7 V	146	0 V
67	3.3 V	147	0 V
68	1.7 V	148	3.3 V
69	0 V	149	3.3 V
70	0.5 V	150	1.6 V
71	3.3 V	151	3.3 V
72	1.6 V	152	0 V
73	0 V	153	0 V
74	0 V	154	0 V
75	0.3 V	155	0 V
76	1.5 V	156	0 V
77	3.3 V	157	0 V
78	2.4 V	158	0 V
79	0.6 V	159	0 V
80	0 V	160	0 V

IC3504

PIN NO.	VOLTAGE	PIN NO.	VOLTAGE
1	3.3 V	61	3.3 V
2	0 V	62	0 V
3	1.6 V	63	0 V
4	0.3 V	64	3.3 V
5	0.3 V	65	3.3 V
6	0 V	66	3.3 V
7	0.3 V	67	1.5 V
8	0.3 V	68	0 V
9	3.0 V	69	0 V
10	0.1 V	70	0 V
11	0.1 V	71	0 V
12	3.0 V	72	3.3 V
13	0.3 V	73	3.3 V
14	2.8 V	74	0.3 V
15	0 V	75	0.3 V
16	3.0 V	76	3.3 V
17	0.4 V	77	0.2 V
18	0.3 V	78	0.2 V
19	0.2 V	79	0 V
20	3.3 V	80	0 V
21	0 V	81	0 V
22	0 V	82	0 V
23	0 V	83	0 V
24	0 V	84	0.3 V
25	0 V	85	0.3 V
26	3.3 V	86	0.3 V
27	0.6 V	87	0.3 V
28	0 V	88	— V
29	0.2 V	89	3.3 V
30	3.3 V	90	3.3 V
31	3.3 V	91	0 V
32	0.2 V	92	3.3 V
33	3.3 V	93	3.3 V
34	0.2 V	94	3.3 V
35	1.5 V	95	3.3 V
36	1.5 V	96	3.3 V
37	1.6 V	97	3.3 V
38	0 V	98	0.9 V
39	1.5 V	99	0 V
40	0.3 V	100	3.9 V
41	0.3 V	101	0.9 V
42	0.3 V	102	0 V
43	0.2 V	103	0 V
44	0.2 V	104	0 V
45	1.5 V	105	—
46	0.2 V	106	—
47	0 V	107	—
48	1.6 V	108	—
49	1.5 V	109	—
50	0 V	110	0 V
51	0 V	111	0 V
52	3.3 V	112	3.3 V
53	0.2 V	113	0 V
54	1.4 V	114	0 V
55	3.1 V	115	3.3 V
56	0 V	116	3.2 V
57	3.3 V	117	0 V
58	0.1 V	118	3.1 V
59	0 V	119	3.3 V
60	3.3 V	120	0 V

IC3602

PIN NO.	VOLTAGE	PIN NO.	VOLTAGE
1	3.3 V	26	0 V
2	1.7 V	27	0.1 V
3	1.6 V	28	0.1 V
4	0 V	29	0.1 V
5	0.5 V	30	0.1 V
6	0.4 V	31	0.1 V
7	3.3 V	32	0.1 V
8	2.6 V	33	1.8 V
9	1.4 V	34	3.3 V
10	0 V	35	1.7 V
11	5.6 V	36	0 V
12	0.6 V	37	0 V
13	3.3 V	38	3.3 V
14	0 V	39	1.7 V
15	3.3 V	40	1.6 V
16	3.3 V	41	0 V
17	3.3 V	42	0.5 V
18	3.3 V	43	0.3 V
19	0.2 V	44	3.3 V
20	1.5 V	45	2.4 V
21	0.5 V	46	1.2 V
22	0.1 V	47	0 V
23	0.1 V	48	0.1 V
24	0.1 V	49	0.7 V
25	3.3 V	50	0 V

IC3801

PIN NO.	VOLTAGE
1	0 V
2	1.7 V
3	1.7 V
4	1.7 V
5	1.7 V
6	1.7 V
7	1.7 V
8	8.0 V
9	0 V
10	0 V
11	3.7 V
12	3.7 V
13	3.7 V
14	3.7 V
15	3.7 V
16	3.7 V
17	3.7 V
18	3.7 V
19	0 V
20	1.2 V
21	3.2 V
22	1.7 V
23	1.7 V
24	1.7 V
25	1.7 V
26	1.7 V
27	1.7 V
28	0 V
29	0 V
30	0 V

IC3720

PIN NO.	VOLTAGE
1	4.7 V
2	0 V
3	0 V
4	0.6 V
5	0 V
6	4.7 V
7	1.2 V
8	0 V
9	0 V
10	1.2 V
11	—
12	—
13	4.7 V
14	4.7 V
15	—
16	0 V
17	1.7 V
18	1.7 V
19	0 V
20	4.7 V
21	0 V
22	0 V
23	0 V
24	0 V
25	0 V
26	0 V
27	3.0 V
28	4.6 V
29	4.6 V
30	—
31	2.5 V
32	2.5 V
33	2.5 V
34	2.5 V
35	0 V
36	2.5 V
37	2.5 V
38	2.5 V
39	2.5 V
40	0 V

IC3603

PIN NO.	VOLTAGE	PIN NO.	VOLTAGE
1	3.3 V	26	0 V
2	1.7 V	27	0.1 V
3	1.6 V	28	0.1 V
4	0 V	29	0.1 V
5	0.5 V	30	0.1 V
6	0.5 V	31	0.1 V
7	3.3 V	32	0.1 V
8	2.7 V	33	0 V
9	1.4 V	34	3.3 V
10	0 V	35	1.8 V
11	0.7 V	36	0 V
12	0.5 V	37	0 V
13	3.3 V	38	3.3 V
14	0 V	39	1.7 V
15	3.2 V	40	1.7 V
16	3.3 V	41	0 V
17	3.3 V	42	0.5 V
18	3.3 V	43	0.3 V
19	0.2 V	44	3.3 V
20	1.5 V	45	2.4 V
21	0.5 V	46	1.2 V
22	0.1 V	47	0 V
23	0.1 V	48	0.1 V
24	0.1 V	49	0.7 V
25	3.3 V	50	0 V

ICA100

PIN NO.	VOLTAGE
1	5 V
2	2.5 V
3	2.5 V
4	0 V
5	2.5 V
6	2.5 V
7	5 V
8	5 V
9	1.3 V
10	2.2 V
11	0 V
12	2.5 V
13	0 V
14	1.6 V
15	1.6 V
16	0 V
17	2.5 V
18	2.5 V
19	2.5 V
20	2.5 V
21	4.5 V
22	1.6 V
23	1.6 V
24	5 V

ICA110

PIN NO.	VOLTAGE
1	5 V
2	2.2 V
3	2.5 V
4	5 V
5	2.2 V
6	2.5 V
7	0 V
8	2.5 V
9	2.2 V
10	5 V
11	2.5 V
12	2.2 V
13	5 V
14	5 V

IC3502

PIN NO.	VOLTAGE
1	3.3 V
2	0.2 V
3	1.5 V
4	1.5 V
5	1.6 V
6	3.3 V
7	1.5 V
8	0.3 V
9	0.3 V
10	0.3 V
11	—
12	—
13	3.3 V
14	3.1 V
15	—
16	1.6 V
17	0.3 V
18	0.3 V
19	0.3 V
20	3.3 V
21	0 V
22	0.3 V
23	3.0 V
24	0.3 V
25	0.3 V
26	3.0 V
27	0 V
28	3.1 V
29	3.1 V
30	—
31	0.2 V
32	0.2 V
33	1.5 V
34	0.2 V
35	0 V
36	1.6 V
37	1.5 V
38	0 V
39	0 V
40	0 V

IC3508

PIN NO.	VOLTAGE	PIN NO.	VOLTAGE
1	3.3 V	51	4.7 V
2	0 V	52	4.7 V
3	1.6 V	53	0 V
4	0.3 V	54	0 V
5	0.3 V	55	0 V
6	0.3 V	56	0 V
7	0.3 V	57	0 V
8	3.0 V	58	0 V
9	0.1 V	59	0 V
10	0 V	60	0 V
11	3.3 V	61	0 V
12	0.2 V	62	3.3 V
13	1.5 V	63	0 V
14	0.2 V	64	4.7 V
15	0.2 V	65	1.8 V
16	1.6 V	66	1.5 V
17	1.5 V	67	2.3 V
18	0 V	68	0.5 V
19	0 V	69	1.4 V
20	3.3 V	70	0.5 V
21	3.3 V	71	0.5 V
22	0 V	72	2.1 V
23	3.3 V	73	—
24	3.3 V	74	—
25	0 V	75	0 V
26	3.3 V	76	3.3 V
27	3.3 V	77	4.6 V
28	3.3 V	78	0 V
29	0 V	79	0 V
30	0 V	80	1.5 V
31	0 V	81	0 V
32	0 V	82	—
33	0 V	83	—
34	0 V	84	—
35	0 V	85	0 V
36	0 V	86	3.3 V
37	0 V	87	—
38	0 V	88	—
39	0 V	89	—
40	3.3 V	90	—
41	0 V	91	3.0 V
42	3.3 V	92	3.0 V
43	1.6 V	93	3.0 V
44	0 V	94	3.0 V
45	4.7 V	95	0 V
46	0 V	96	0 V
47	2.3 V	97	0 V
48	4.7 V	98	0 V
49	4.7 V	99	3.0 V
50	0 V	100	0 V

IC3301

PIN NO.	VOLTAGE	PIN NO.	VOLTAGE
1	0 V	33	1.6 V
2	2.0 V	34	0 V
3	2.0 V	35	1.6 V
4	4.6 V	36	4.7 V
5	0 V	37	—
6	1.6 V	38	—
7	1.2 V	39	0 V
8	3.3 V	40	1.6 V
9	1.9 V	41	2.5 V
10	1.9 V	42	4.6 V
11	3.8 V	43	1.5 V
12	3.8 V	44	1.5 V
13	0 V	45	0 V
14	0 V	46	4.6 V
15	0 V	47	2.0 V
16	2.3 V	48	2.0 V
17	1.4 V	49	2.0 V
18	4.7 V	50	2.0 V
19	0 V	51	4.7V
20	1.7 V	52	0.2 V
21	1.7 V	53	2.0 V
22	3.2 V	54	0 V
23	4.7 V	55	2.0 V
24	—	56	0 V
25	1.7 V	57	4.7 V
26	0.9 V	58	2.0 V
27	1.6 V	59	2.0 V
28	2.3 V	60	2.0 V
29	0 V	61	2.0 V
30	1.5 V	62	0 V
31	4.7 V	63	2.0 V
32	0 V	64	2.0 V

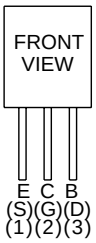
NOTES ON SCHEMATIC DIAGRAM

- Resistor:
  To differentiate the units of resistors, such symbol as K and M are used: the symbol K means 1000 ohm and the symbol M means 1000 kohm and the resistor without any symbol is ohm-type resistor. Besides, the one with “Fusible” is a fuse type.
- Capacitor:
  To indicate the unit of capacitor, a symbol P is used: this symbol P means pico-farad and the unit of the capacitor without such a symbol is microfarad. As to electrolytic capacitor, the expression “capacitance/withstand voltage” is used.
  (CH), (TH), (RH), (UJ): Temperature compensation
  (ML): Mylar type
  (P.P.): Polypropylene type
- Schematic diagram and Wiring Side of P.W.Board for this model are subject to change for improvement without prior notice.
- The indicated voltage in each section is the one measured by Digital Multimeter between such a section and the chassis with no signal given.
  1. In the tuner section,
     indicates AM
     indicates FM stereo
  2. In the main section, a tape is being played back.
  3. In the deck section, a tape is being played back.
     ( ) indicates the record state.
  4. In the power section, a tape is being played back.
  5. In the CD section, the CD is stopped.
- Parts marked with “⚠” (⊏ ═ ═ ═ ⊐) are important for maintaining the safety of the set. Be sure to replace these parts with specified ones for maintaining the safety and performance of the set.

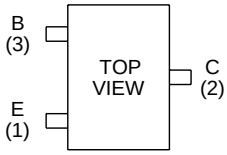
REF. NO	DESCRIPTION	POSITION
SW1	OPEN/CLOSE	ON—OFF
SW4	PICKUP IN	ON—OFF
SWE01	ON/STAND-BY	ON—OFF
SWE02	PLAY	ON—OFF
SWE03	STOP	ON—OFF
SWE04	FUNCTION	ON—OFF
SWE05	BAND	ON—OFF

REF. NO	DESCRIPTION	POSITION
SWE06	OPEN/CLOSE	ON—OFF
SWE07	SKIP DOWN	ON—OFF
SWE08	SKIP UP	ON—OFF
SWE09	VOLUME DOWN	ON—OFF
SWE10	VOLUME UP	ON—OFF
SWV01	DVD VIDEO OUT SELECTOR	ON—OFF

TYPES OF TRANSISTOR AND LED

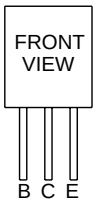


KRC107 M
KRC111 S
KTA1023 Y
KTA1266 GR
KTA1273 Y
KTC3199 GR
2SA2012
2SB1424 R
2SB1142 S
2SC5565
2SC3852 A

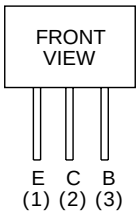


KRA102 S
KRA104 S
KRA106 S
KRA107 S
KRC104 S
KRC107 S
KTA1504 Y
KTA1504 GR

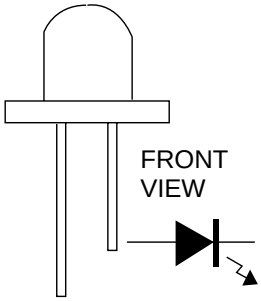
KTC2875 B
KTC3875 GR
KTC4375 Y
2SA1955 A
2SC2412 KR
2SC3052 F
2SK208
2SK1847



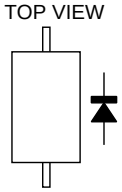
KTD2058 Y



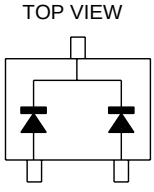
2SD1858 R2



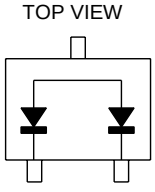
31URT21
3105VGT
3105T1
SELU2EC



KDS160



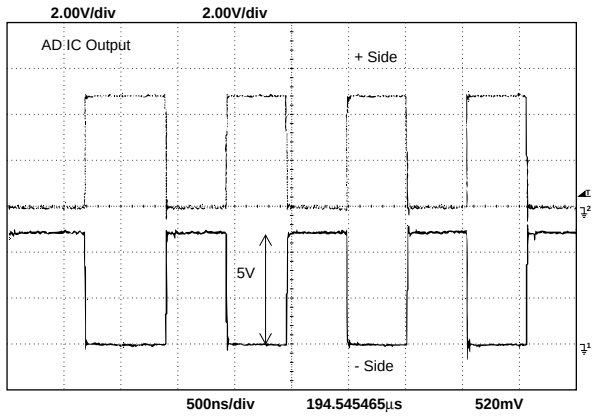
1SS361



DAP202K

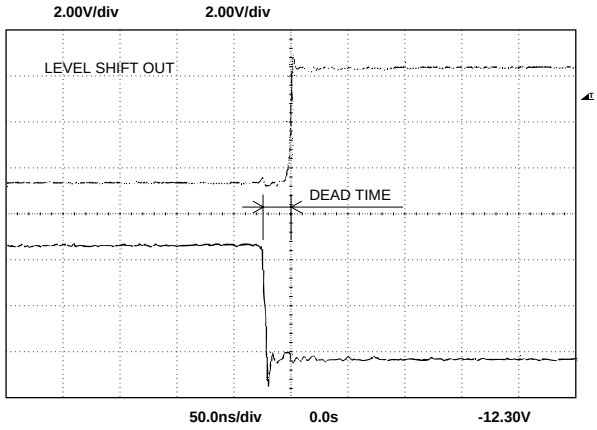
WAVEFORMS OF 1-BIT CIRCUIT

1
2



Amplitude
from 0 to 5 V

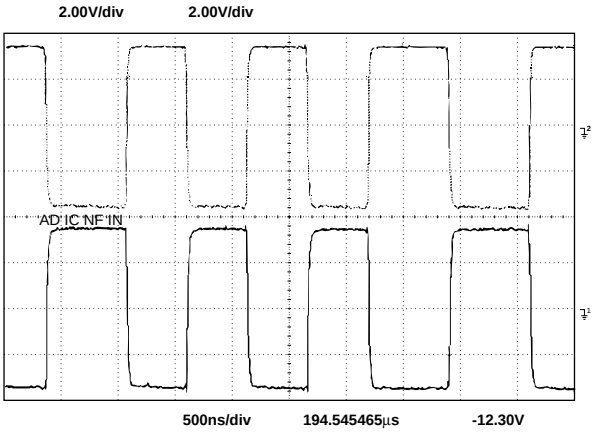
5
6



ZOOM UP

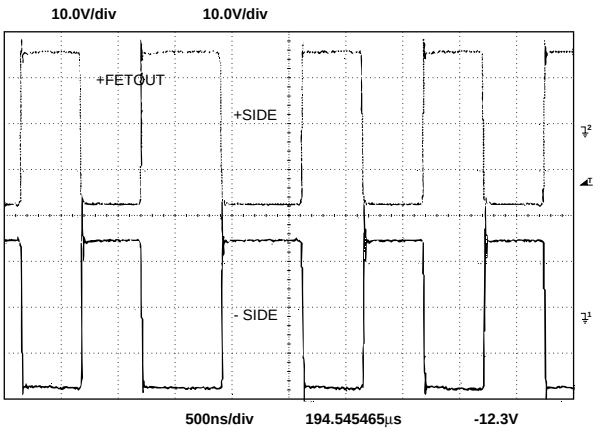
Dead time is generated by level shift input.
Leading edge is delayed at CR, passing R at DI.
Set value: 20 -25 nsec

3
4



In partial pressure OUT, 4 to 7 V amplitude of GND reference is observed.
In IC of 75 kohms, the reference is 2.5 V because of VREF. Due to imaginary GND of operational amplifier inside IC, the waveform cannot be monitored.
This waveform is partial pressure OUT.

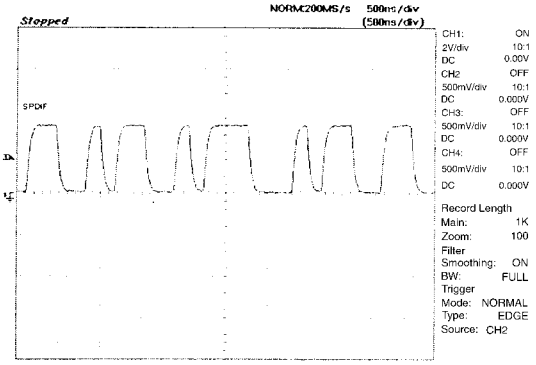
11
12



Waveforms before low-pass filters at both ends of the speaker
H-bridge may be considered as BTL. However, here and at the gate drive, dead time is not observed; since bootstrap operates based on output, DEAD TIME part is in floating condition. The waveform on the HI GH side shows that only the booted voltage lowers.

WAVEFORMS OF DVD CIRCUIT

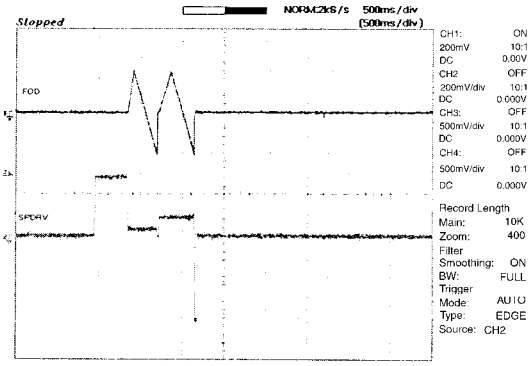
❶ IC3601 133pin



NO DISC

❷ IC3701 158pin

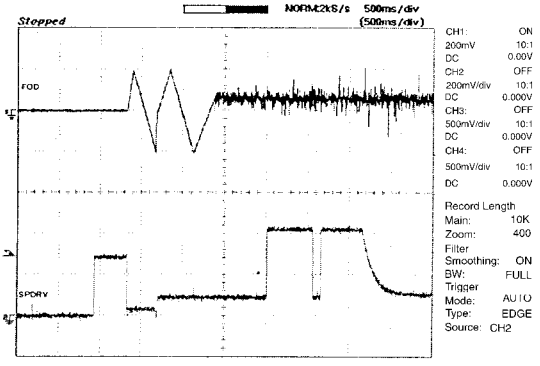
❸ IC3701 163pin



VD PLAY

❷ IC3701 158pin

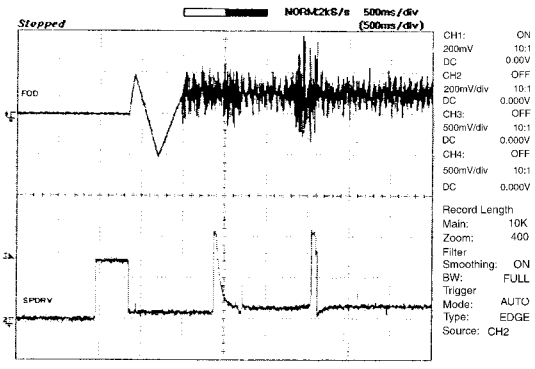
❸ IC3701 163pin



CD PLAY

❷ IC3701 158pin

❸ IC3701 163pin

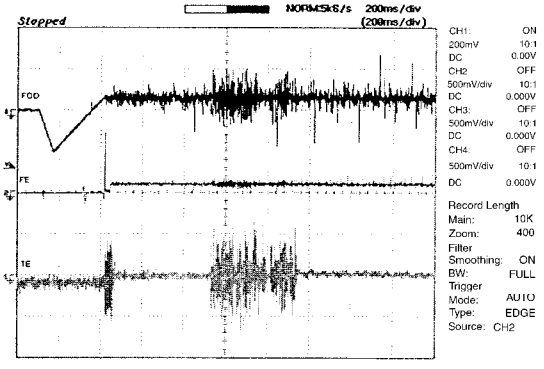


VD PLAY

❷ IC3701 158pin

❹ IC3301 21pin

❺ IC3301 20pin

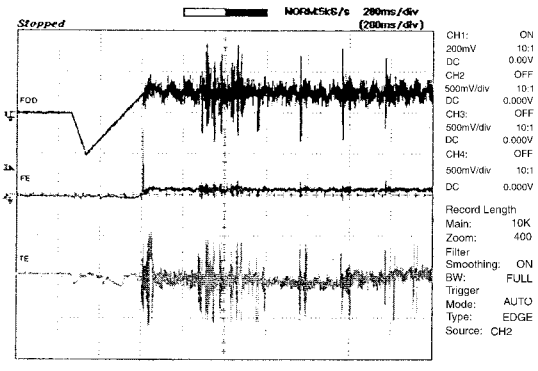


CD PLAY

❷ IC3701 158pin

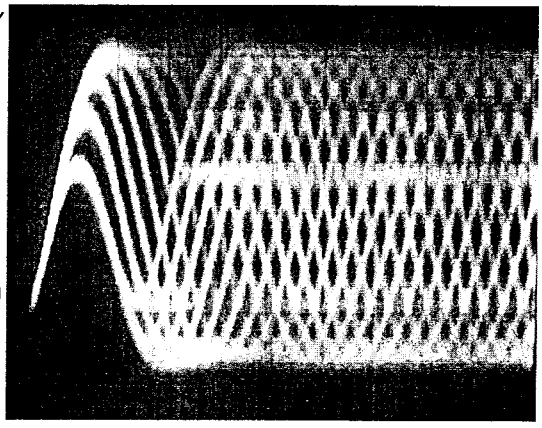
❹ IC3301 21pin

❺ IC3301 20pin



VD PLAY

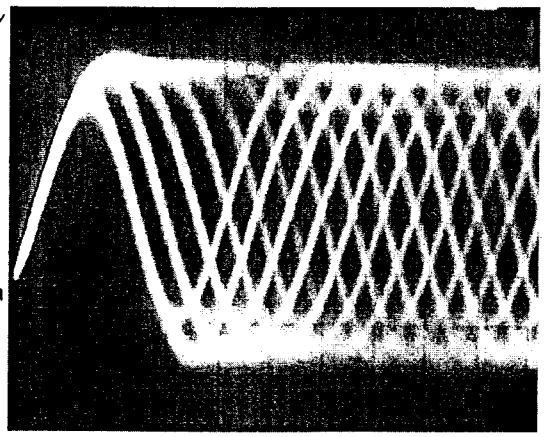
❻ IC3301 30pin



Vp-p=1.2V (1.0V～1.4V)
0.2V/div , 0.1 μ sec/div

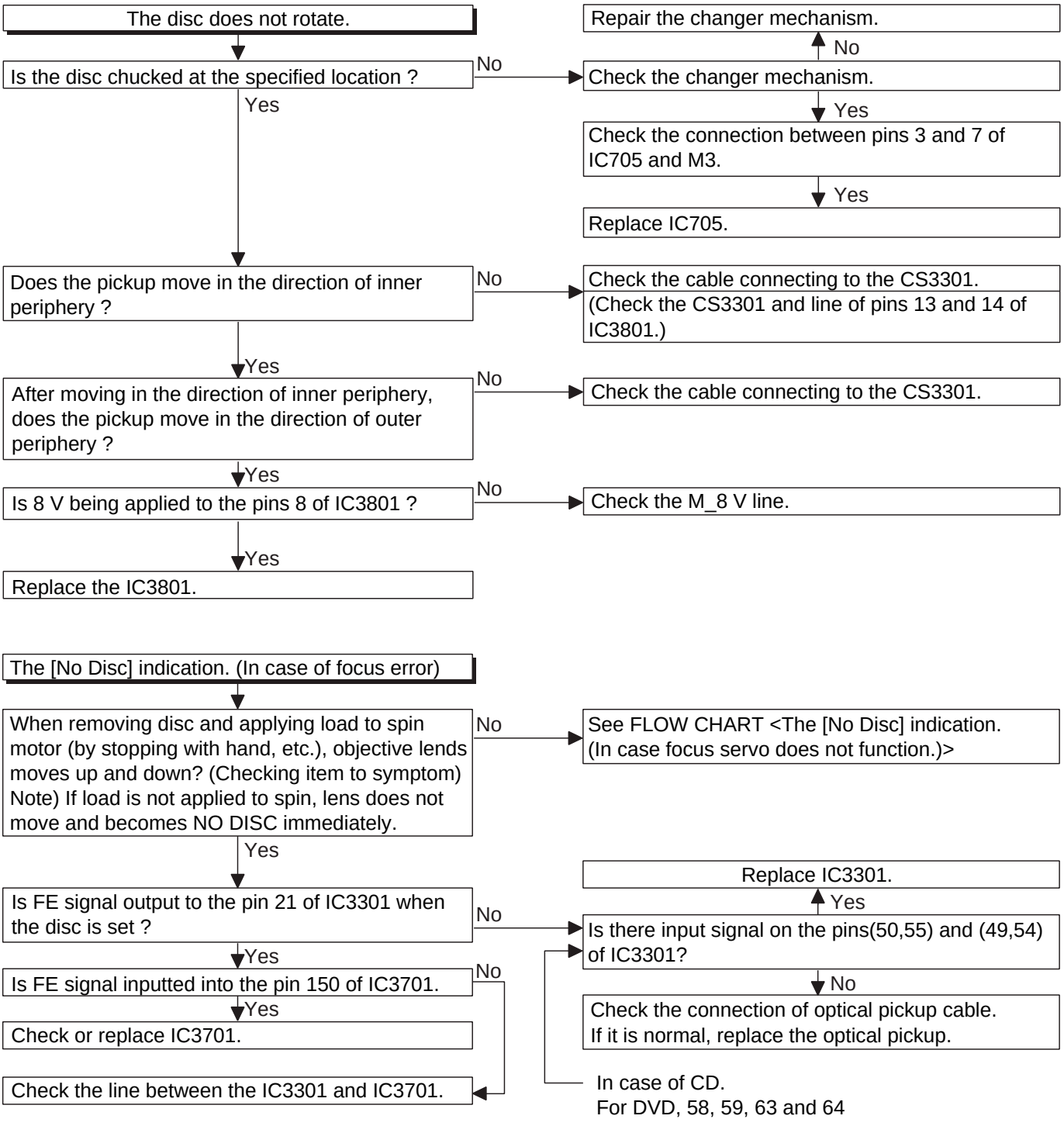
CD PLAY

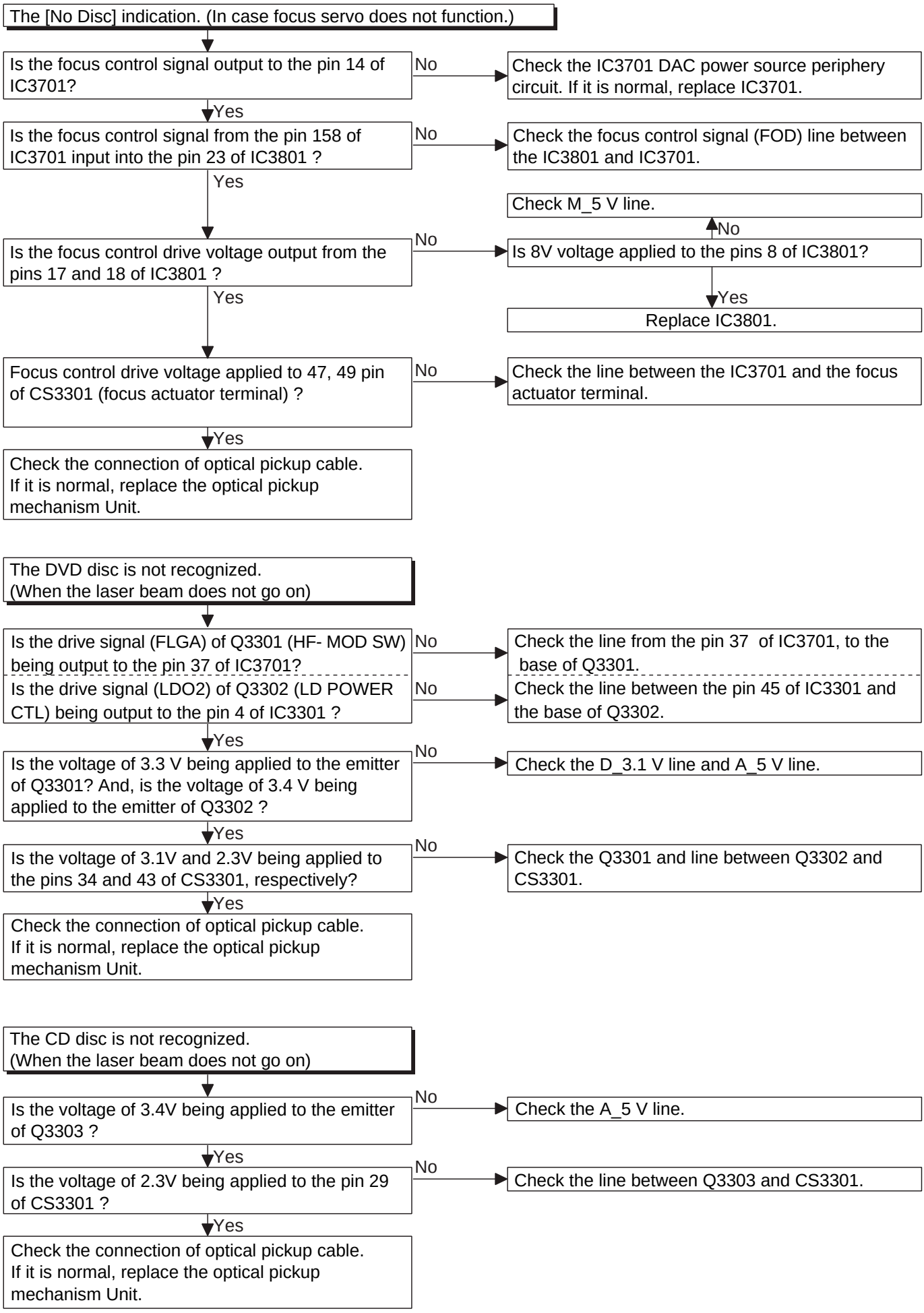
❻ IC3301 30pin

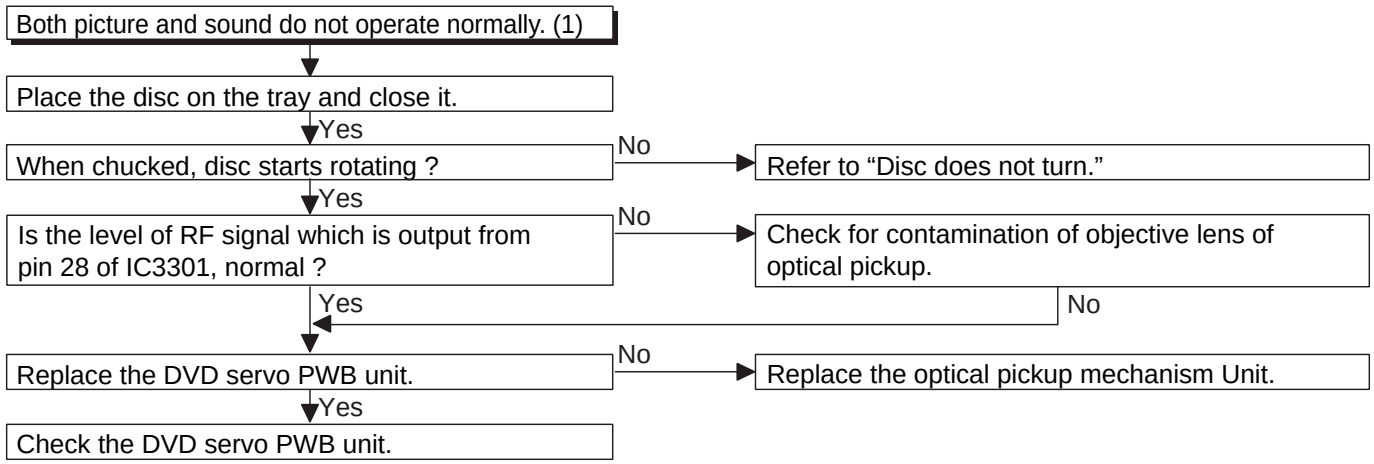


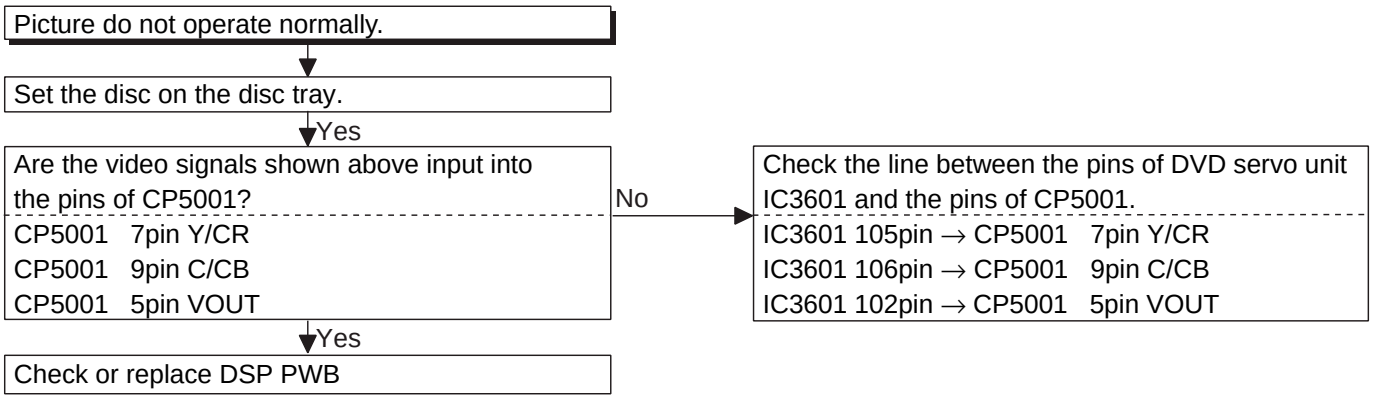
Vp-p=1.2V (1.0V～1.4V)
0.2V/div , 0.2 μ sec/div

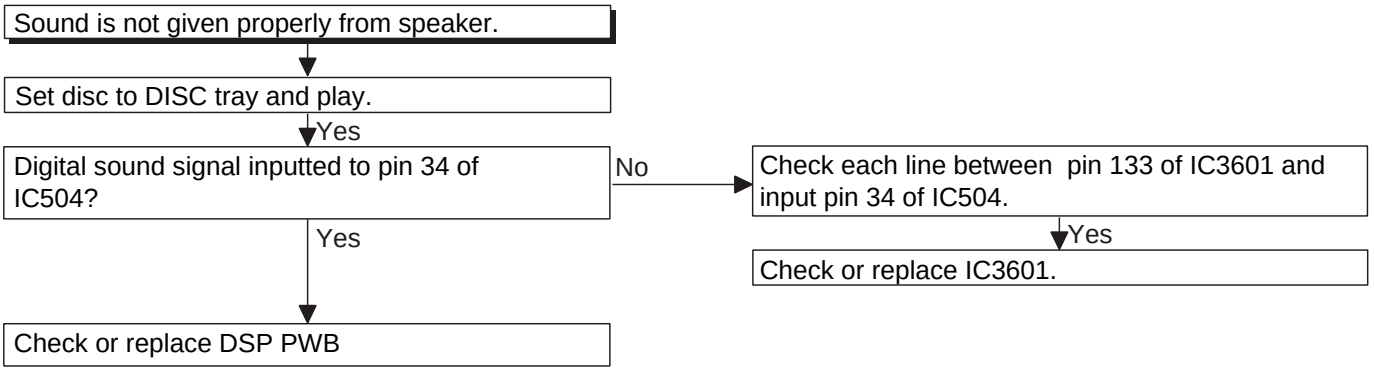
TROUBLESHOOTING


The disc does not rotate.
Is the disc chucked at the specified location ?
No
Repair the changer mechanism.
No
Check the changer mechanism.
Yes
Yes
Check the connection between pins 3 and 7 of IC705 and M3.
Yes
Replace IC705.
Yes
Does the pickup move in the direction of inner periphery ?
No
Check the cable connecting to the CS3301.
(Check the CS3301 and line of pins 13 and 14 of IC3801.)
Yes
After moving in the direction of inner periphery, does the pickup move in the direction of outer periphery ?
No
Check the cable connecting to the CS3301.
Yes
Is 8 V being applied to the pins 8 of IC3801 ?
No
Check the M_8 V line.
Yes
Replace the IC3801.
The [No Disc] indication. (In case of focus error)
When removing disc and applying load to spin motor (by stopping with hand, etc.), objective lends moves up and down? (Checking item to symptom)
Note) If load is not applied to spin, lens does not move and becomes NO DISC immediately.
No
See FLOW CHART <The [No Disc] indication. (In case focus servo does not function.)>
Yes
Replace IC3301.
Yes
Is FE signal output to the pin 21 of IC3301 when the disc is set ?
No
Is there input signal on the pins(50,55) and (49,54) of IC3301?
Yes
No
Is FE signal inputted into the pin 150 of IC3701.
No
Yes
Check or replace IC3701.
Check the connection of optical pickup cable.
If it is normal, replace the optical pickup.
Check the line between the IC3301 and IC3701.
In case of CD.
For DVD, 58, 59, 63 and 64


The [No Disc] indication. (In case focus servo does not function.)
Is the focus control signal output to the pin 14 of IC3701?
No
Check the IC3701 DAC power source periphery circuit. If it is normal, replace IC3701.
Yes
Is the focus control signal from the pin 158 of IC3701 input into the pin 23 of IC3801 ?
No
Check the focus control signal (FOD) line between the IC3801 and IC3701.
Yes
Check M_5 V line.
No
Is the focus control drive voltage output from the pins 17 and 18 of IC3801 ?
No
Is 8V voltage applied to the pins 8 of IC3801?
Yes
Yes
Replace IC3801.
Focus control drive voltage applied to 47, 49 pin of CS3301 (focus actuator terminal) ?
No
Check the line between the IC3701 and the focus actuator terminal.
Yes
Check the connection of optical pickup cable.
If it is normal, replace the optical pickup mechanism Unit.
The DVD disc is not recognized.
(When the laser beam does not go on)
Is the drive signal (FLGA) of Q3301 (HF- MOD SW) being output to the pin 37 of IC3701?
No
Check the line from the pin 37 of IC3701, to the base of Q3301.
Is the drive signal (LDO2) of Q3302 (LD POWER CTL) being output to the pin 4 of IC3301 ?
No
Check the line between the pin 45 of IC3301 and the base of Q3302.
Yes
Is the voltage of 3.3 V being applied to the emitter of Q3301? And, is the voltage of 3.4 V being applied to the emitter of Q3302 ?
No
Check the D_3.1 V line and A_5 V line.
Yes
Is the voltage of 3.1V and 2.3V being applied to the pins 34 and 43 of CS3301, respectively?
No
Check the Q3301 and line between Q3302 and CS3301.
Yes
Check the connection of optical pickup cable.
If it is normal, replace the optical pickup mechanism Unit.
The CD disc is not recognized.
(When the laser beam does not go on)
Is the voltage of 3.4V being applied to the emitter of Q3303 ?
No
Check the A_5 V line.
Yes
Is the voltage of 2.3V being applied to the pin 29 of CS3301 ?
No
Check the line between Q3303 and CS3301.
Yes
Check the connection of optical pickup cable.
If it is normal, replace the optical pickup mechanism Unit.


Both picture and sound do not operate normally. (1)
Place the disc on the tray and close it.
Yes
When chucked, disc starts rotating ?
No
Refer to “Disc does not turn.”
Yes
Is the level of RF signal which is output from pin 28 of IC3301, normal ?
No
Check for contamination of objective lens of optical pickup.
Yes
No
Replace the DVD servo PWB unit.
No
Replace the optical pickup mechanism Unit.
Yes
Check the DVD servo PWB unit.


Picture do not operate normally.
Set the disc on the disc tray.
Yes
Are the video signals shown above input into the pins of CP5001?
CP5001 7pin Y/CR
CP5001 9pin C/CB
CP5001 5pin VOUT
No
Check the line between the pins of DVD servo unit IC3601 and the pins of CP5001.
IC3601 105pin → CP5001 7pin Y/CR
IC3601 106pin → CP5001 9pin C/CB
IC3601 102pin → CP5001 5pin VOUT
Yes
Check or replace DSP PWB


Sound is not given properly from speaker.
Set disc to DISC tray and play.
Yes
Digital sound signal inputted to pin 34 of IC504?
No
Check each line between pin 133 of IC3601 and input pin 34 of IC504.
Yes
Check or replace IC3601.
Yes
Check or replace DSP PWB

FUNCTION TABLE OF IC

IC3701 VHiTC94A03F-1: Servo ECC (TC94A03F) (1/3)

Pin No.	Terminal Name	Input/Output	Function
1	ASLCN	Output	Data slice negative output.
2	ASLCO	Output	Analog data slice output. (at differential input, digital slice output enable)
3	DVSS	—	DAC ground.
4*	RO	Output	R-ch output signal.
5	DVDD	Input	DAC power supply.
6	DVR	Output	Amp reference signal output.
7*	LO	Output	L-ch output signal.
8	DVSS	—	DAC ground.
9	XVSS	—	Oscillator ground.
10	XI	Input	Crystal oscillation input.
11	XO	Output	Crystal oscillation output.
12	XVDD	Input	Oscillator power supply.
13-15(14*)	TESM0-2	—	Test terminal.
16	VDD3	Input	3.3 V digital power supply.
17	VSS3	—	3.3 V digital ground.
18	VPFC	Output	Clock PLL system phase/frequency comparison output.
19	TEST0	Input	Test mode terminal.
20	VLPFI	Input	VCO system filter input for clock PLL.
21	VLPFO	Output	VCO system filter output for clock PLL.
22	VSS3	—	3.3 V digital ground.
23*-32*	MON0-9	Output	Test monitor.
33	VDD3	Input	3.3 V digital power supply.
34*,35*	N.C.	—	—
36	TEST1	Input	Test mode terminal.
37	FLGA	Input/Output	General-purpose I/O or flag monitor.
38*	FLGB	Input/Output	General-purpose I/O or flag monitor.
39	VSS3	—	3.3 V digital ground.
40	/RST	Input	Reset terminal.
41	/MA	Input	Microcomputer address enable signal.
42	/MRD	Input	Microcomputer data read signal.
43	/MWR	Input	Microcomputer data write signal.
44	/MCE	Input	Microcomputer chip enable signal.
45	/MINT	Output	Microcomputer interrupt signal.
46-53	MD0-7	Input/Output	Microcomputer data bus.
54	VDD5	Input	5 V power supply.
55*,56*	N.C.	—	—
57*	SMCK	Output	22 M system clock output.
58*	VMCK	Output	Clock output for data output (signal processing) system.
59	VDD3	Input	3.3 V digital power supply.
60	PD0	Output	DVD/CD data output.
61	VSS5	—	5 V ground.
62-65	PD1-4	Output	DVD/CD data output.
66	VSS3	—	3.3 V digital ground.
67-70	PD5-PD8	Output	DVD/CD data output.
71	/PSYC	Output	DVD data sector synchronous signal.
72	/PDRQ	Output	DVD data transfer block.
73	PDCK	Output	DVD data transfer clock.
74	VDD5	Input	5 V power supply.
75	TESM3	—	Test terminal.
76	DIGI	Input	1 bit DAC digital IN input.

In this unit, the terminal with asterisk mark (*) is (open) terminal which is not connected to the outside.

IC3701 VHiTC94A03F-1: Servo ECC (TC94A03F) (2/3)

Pin No.	Terminal Name	Input/Output	Function
77	TESM4	—	Test terminal.
78	VDD3	Input	3.3 V digital power supply.
79-82	BA0-4	Output	External RAM address output.
83	VSS5	—	5 V ground.
84-88	BA4-8	Output	External RAM address output.
89	VDD3	Input	3.3 V digital power supply.
90	/BOE	Output	External RAM/OE signal.
91	/BRAS	Output	External RAM/RAS signal.
92	/BCAS	Output	External RAM/CAS signal.
93	/BWL	Output	External RAM Lower/WE signal.
94	/BWU	Output	External RAM Upper/WE signal.
95	VDD5	Input	5 V power supply.
96-104	BD0-8	Input/Output	External RAM data input/output.
105	VSS3	—	3.3 V digital ground.
106-109	BD9-12	Input/Output	External RAM data input/output.
110	VSS5	—	5 V ground.
111-113	BD13-15	Input/Output	External RAM data input/output.
114*,115*	N.C.	—	—
116	VDD3	Input	3.3 V digital power supply.
117	PLCK	Input/Output	PLL system clock input/output.
118,119	TESM5-6	—	Test terminal.
120*,121*	TESM7-8	—	Test terminal.
122	VSS3	—	3.3 V digital ground.
123,124	CFC1,2	Output	VCO frequency control signal.
125	PPW	Output	Voltage output for phase comparator offset adjustment.
126	PESV	—	Signal input for phase comparator offset adjustment.
127	PVSS	—	3.3 V PLL system ground.
128	PESP	Output	Signal output for phase comparator offset adjustment.
129	PDOP1	Output	DVD/CD phase control signal. (positive polarity)
130	PDON1	Output	DVD/CD phase control signal. (negative polarity)
131	PDOP2	Output	DVD/CD phase control signal. (positive polarity)
132	PDON2	Output	DVD/CD phase control signal. (negative polarity)
133	LPFN	Input	Inversion input for data PLL low-pass filter.
134	LPFO	Output	Data PLL low-pass filter output.
135	PVREF	—	Reference power supply for data PLL system.
136	VCOREF	Input	VCO standard reference.
137	VCOF	Input	VCO auto adjustment filter output.
138	PVDD	Input	Power supply for 3.3 V PLL system.
139	SLCO1	Input/Output	Data slice 6-bit DAC output. (at differential input, RF On)
140*	TESM9	—	Test terminal.
141	TEST2	Input	Test mode terminal.
142	RFCD	Input	CD RF signal input. (at differential input, RF On)
143	RFDVD	Input	CD RF signal input. (at differential input, RF On)
144	AVDD	Input	Power supply for 3.3 V analog system.
145*	RFCT	Input	RFRP center voltage input. (zero cross import)
146	RFZI	Input	RFRP zero cross signal input.
147	TEZI	Input	Tracking error signal input. (zero cross import)
148	AWIN	Input	Signal input for active wide PLL control.
149	AVSS	Input	Power supply for 3.3 V analog system.
150	FEI	Input	Focus error signal input.
151	TEI	Input	Tracking error signal input.
152	RFSB	Input	Add input for RF level or sub beam signal.

In this unit, the terminal with asterisk mark (*) is (open) terminal which is not connected to the outside.

IC3701 VHiTC94A03F-1: Servo ECC (TC94A03F) (3/3)

Pin No.	Terminal Name	Input/Output	Function
153	RFRP	Input	RFRP signal input.
154	AVSS	Input	Power supply for 3.3 V analog system.
155	TESM10	—	Test terminal.
156	EXTAD	Input	General-purpose external ADC input.
157	VREF	Input	Reference power supply for analog system: 1.65 V.
158	FOO	Output	Focus EQ output.
159	TRO	Output	Tracking EQ output.
160	AVDD	Input	Power supply for 3.3 V analog system.
161	AWCTL	Output	Active wide PLL control output.
162	FMO	Output	Feed EQ output.
163	DMO	Output	Disc EQ output.
164	TEBC	Output	Tracking balance control signal.
165*	FEBC	Output	Focus balance control signal.
166	DPDC	Output	Pit depth adjustment signal of DPD error signal.
167	EQBC	Output	Boost adjustment signal for RF wide area.
168	ANMON	Output	General-purpose PWM output.
169	/DFCT	Output	Black dot detection signal.
170	VRCK	Output	RF EQ characteristics control clock.
171	VSS3	—	3.3 V digital ground.
172	SCD	Output	Head amp serial data.
173	SCL	Output	Head amp serial latch pulse.
174	SCB	Output	Head amp serial data clock.
175*	FGIN	Input	Disc FG signal input. (with self-bias circuit).
176	ASLCP	Output	Data slice positive output.

The terminal whose name starts with "/" is activated in "L".
In this unit, the terminal with asterisk mark (*) is (open) terminal which is not connected to the outside.

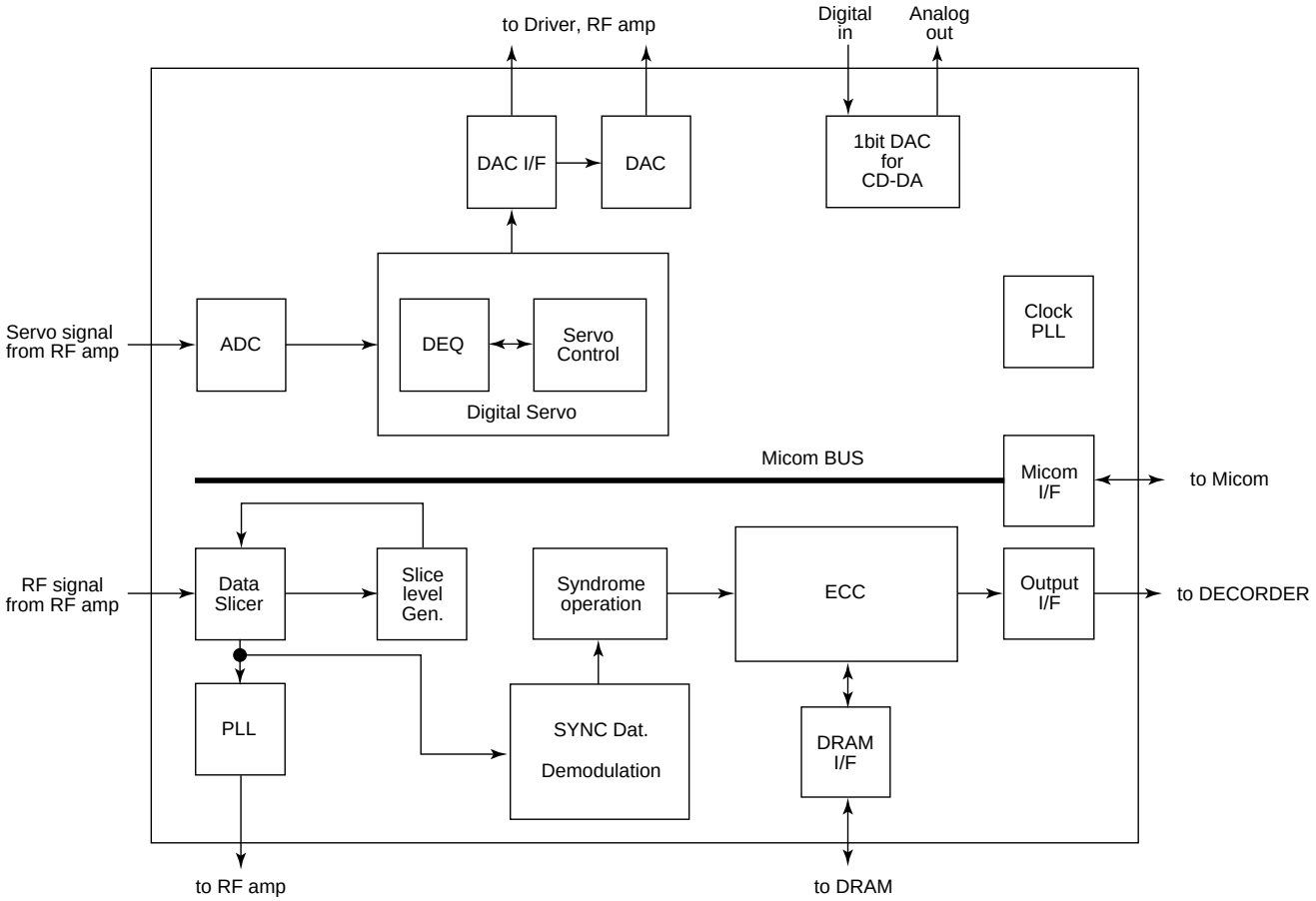


Figure 94 BLOCK DIAGRAM OF IC

IC3301 VHiTA1323F+-1: RF Signal Processor (TA1323F) (1/2)

Pin No.	Terminal Name	Input/Output	Function
1	GND	—	GND terminal.
2	P2TP	Input	TE+ input. (CD)
3	P2TN	Input	TE– input. (CD)
4	LDO2	Output	Drive output 2.
5	MDI2	Input	Monitor input 2.
6	VrD	Output	Digital VREF.
7	Vrfil	—	Filter capacity for reference.
8	Vdd	Input	Power terminal.
9	DPAC	—	DPD AC combination capacity 1.
10	DPBD	—	DPD AC combination capacity 2.
11	DPD1	—	DPD integral capacity 1.
12	DPD2	—	DPD integral capacity 2.
13	SCB	Input	Control line. (Bit clock)
14	SCL	Input	Control line. (Latch signal)
15	SCD	Input	Control line. (Sirial Data)
16	VRCK	Input	Reference clock input.
17	VCKF	—	Capacity for VRCK time constant adjustment.
18	VccP	Input	Power terminal.
19	LVL	Output	Servo addition output.
20	TEO	Output	TE output.
21	FEO	Output	FE output.
22	DFTN	Input	DPD difect.
23	VccS	Input	Power terminal. (servo)
24*	N.C.	—	—
25	RPZ	Output	RF ripple output 2.
26	RPO	Output	RF ripple output 1.
27	RPB	—	RF ripple bottom.
28	RPP	—	RF ripple peak.
29	RFOn	Output	Equivalent RF output. (Differential output)
30	RFOp	Output	Equivalent RF output. (Differential output)
31	VccR	Input	Power terminal. (RF)
32	RFS	Input	RF slice level adjustment.
33	TEB	Input	TE balance.
34	FEB	Input	FE balance.
35	DPDB	Input	Pit depth adjustment.
36	Vcc2	Input	Power terminal.
37*	N.C.	—	—
38*	N.C.	—	—
39	GND2	—	GND terminal.
40	TCC1	Input	Time constant adjustment.
41	RFDC	—	DC feedback capacity.
42	VrA	Output	Analog VREF.
43	EQB	Input	Boost adjustment.
44	EQF	Input	Frequency adjustment.
45	MDI1	Input	Monitor input 1.
46	LDO1	Output	Drive output 1.
47	P1TN	Input	TE– input. (DVD)
49	P1FN	Input	FE– input. (DVD)
50	P1FP	Input	FE+ input. (DVD)
51	LDP1	Input	APC polarity 1.
52	P1DI	Input	D input. (DVD)

In this unit, the terminal with asterisk mark (*) is (open) terminal which is not connected to the outside.

IC3301 VHiTA1323F+-1: RF Signal Processor (TA1323F) (2/2)

Pin No.	Terminal Name	Input/Output	Function
53	$\overline{\text{P1CI}}$	Input	C input. (DVD)
54	P1BI	Input	B input. (DVD)
55	P1AI	Input	A input. (DVD)
56	GNDR	—	GND terminal. (RF)
57	LDP2	Input	APC polarity 2.
58	P2AI	Input	A input. (CD)
59	P2BI	Input	B input. (CD)
60	P2CI	Input	C input. (CD)
61	P2DI	Input	D input. (CD)
62	GNDS	—	GND terminal. (Servo)
63	P2FP	Input	FE+ input. (CD)
64	P2Fn	Input	FE– input. (CD)

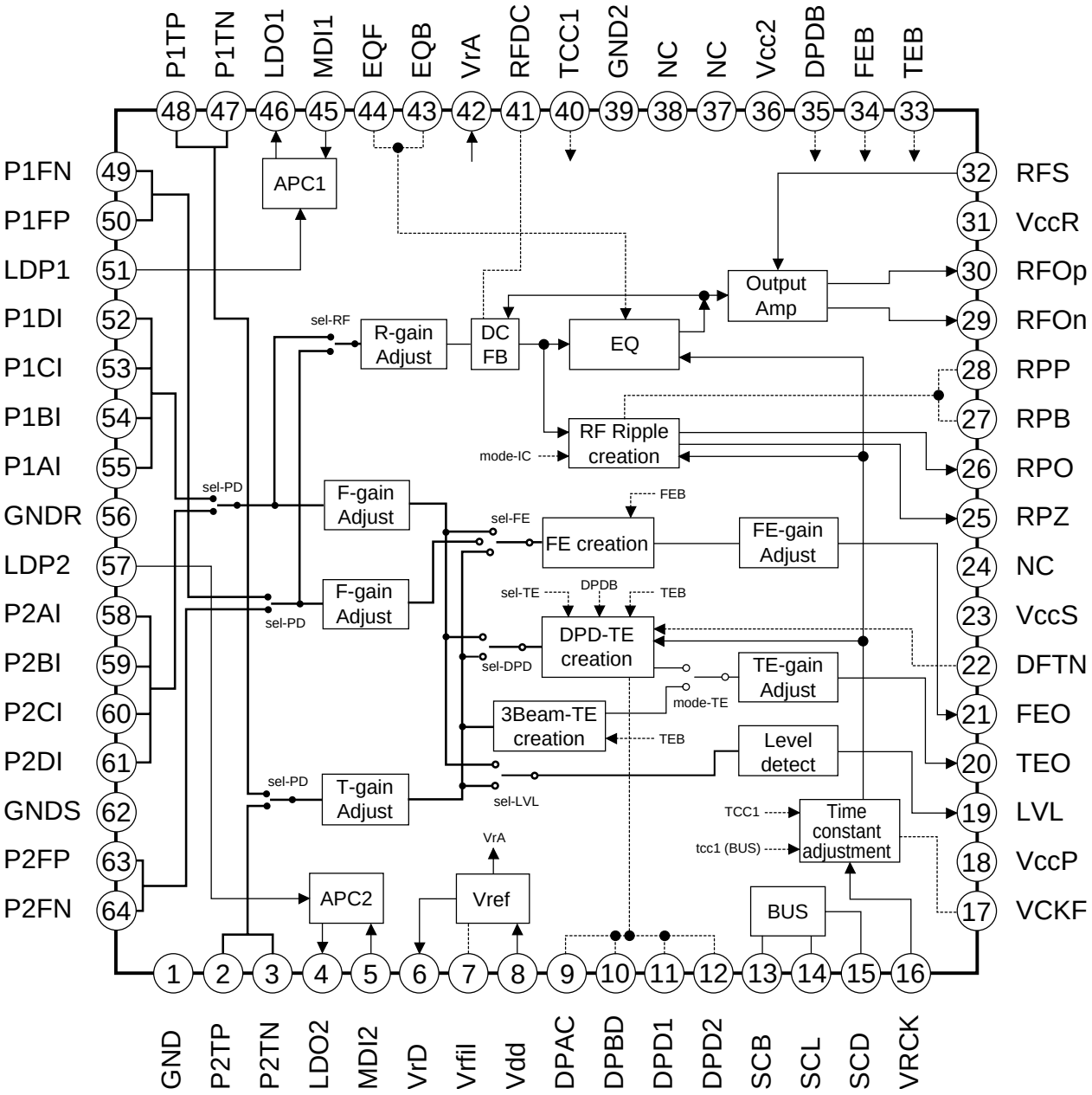


Figure 96 BLOCK DIAGRAM OF IC

IC3508 RH-iX1761GEZZ: Track Buffer Interface (IX1761GE) (1/2)

Pin No.	Terminal Name	Input/Output	Function
1	VDD1	Input	Digital power supply +3.3 V.
2	HADR0	Input	CPU Address bus.
3	HADR1	Input	CPU Address bus.
4	HADR2	Input	CPU Address bus.
5	HADR3	Input	CPU Address bus.
6	HADR4	Input	CPU Address bus.
7	HADR5	Input	CPU Address bus.
8	HADR6	Input	CPU Address bus.
9	HADR7	Input	CPU Address bus.
10	VSS	—	Digital GND.
11	VDD1	Input	Digital power supply +3.3 V.
12	HDAT0	Input/Output	CPU Data bus.
13	HDAT1	Input/Output	CPU Data bus.
14	HDAT2	Input/Output	CPU Data bus.
15	HDAT3	Input/Output	CPU Data bus.
16	HDAT4	Input/Output	CPU Data bus.
17	HDAT5	Input/Output	CPU Data bus.
18	HDAT6	Input/Output	CPU Data bus.
19	HDAT7	Input/Output	CPU Data bus.
20	HRD	Input	CPU Read signal.
21	HWR	Input	CPU write signal.
22	HAS	Input	CPU address strobe.
23	HCS1	Input	CPU chip select signal 1. (Track Buffer Operation)
24	HCS2	Input	CPU chip select signal 2. (bus Voltage Transfer)
25	VSS	—	Digital GND.
26	VDD1	Input	Digital power supply +3.3 V.
27	HWAIT	Output	CPU wait signal. (Open drain)
28	HINT	Output	CPU interrupt signal. (Open drain)
29	VSS	—	Digital GND.
30-38	PDO[0]-[8]	Output	Output DVD/CDdata.
39	VSS	—	Digital GND.
40	VDD1	Input	Digital power supply +3.3 V.
41	PSYCO	Output	Output data selector sync signal.
42	PDRQO	Output	Output data transfer block signal.
43	PDCKO	Output	Output data transfer clock.
44	VSS	—	Digital GND.
45	VDD2	Input	Digital power supply +5 V.
46	DVDREQ	Input	Request signal input.
47	PDCKI	Input	Input data transfer clock.
48	PDRQI	Input	Input data transfer block signal.
49	PSYCI	Input	Input data selector sync signal.
50	VSS	—	Digital GND.
51	VDD2	Input	Digital power supply +5 V.
52-60	PDI[8]-[0]	Output	Input DVD/CD data.
61	VSS	—	Digital GND
62	VDD1	Input	Digital power supply +3.3 V.
63	VSS	—	Digital GND.
64	VDD2	Input	Digital power supply +5 V.
65-72	5VBUS[7]-[0]	Input/Output	CPU bus 5 V conversion input/output.
73*,74*	N.C.	—	—
75	VSS	—	Digital GND.

In this unit, the terminal with asterisk mark (*) is (open) terminal which is not connected to the outside.

IC3508 RH-iX1761GEZZ: Track Buffer Interface (IX1761GE) (2/2)

Pin No.	Terminal Name	Input/Output	Function
76	VDD1	Input	Digital power supply +3.3 V.
77	5VBUFO[B]	Output	5 V buffer output B.
78	5VBUFI[B]	Output	5 V buffer input B. (3.3 V input)
79	5VBUFO[A]	Output	5 V buffer output A.
80	5VBUFI[A]	Output	5 V buffer input A. (3.3 V input)
81*	GPO[3]	Output	General-purpose output terminal. (CPU control)
82*	GPO[2]	Output	General-purpose output terminal. (CPU control)
83*	GPO[1]	Output	General-purpose output terminal. (CPU control)
84*	GPO[0]	Output	General-purpose output terminal. (CPU control)
85	VSS	—	Digital GND.
86	VDD1	Input	Digital power supply +3.3 V.
87*	LI[1]	Input	Gate Input[1].
88*	LI[2]	Input	Gate Input[2].
89*	BUFO[C]	Output	Schmitt trigger buffer output C.
90*	BUFI[C]	Input	Schmitt trigger buffer input C.
91	BUFO[B]	Output	Schmitt trigger buffer output B.
92	BUFI[B]	Input	Schmitt trigger buffer input B.
93	BUFO[A]	Output	Schmitt trigger buffer output A.
94	BUFI[A]	Input	Schmitt trigger buffer input A.
95	TEST0	Input	Test terminal 0 (Normal: Low, Test: Hi) Function.
96	TEST1	Input	Test terminal 1 (Normal: Low, Test: Hi) RAM.
97	TEST2	Input	Test terminal 2 (Normal: Low, Test: Hi) Pin.
98*	N.C.	—	—
99	MRST	Input	27 MHz Input terminal.
100	VSS	—	Digital GND.

In this unit, the terminal with asterisk mark (*) is (open) terminal which is not connected to the outside.

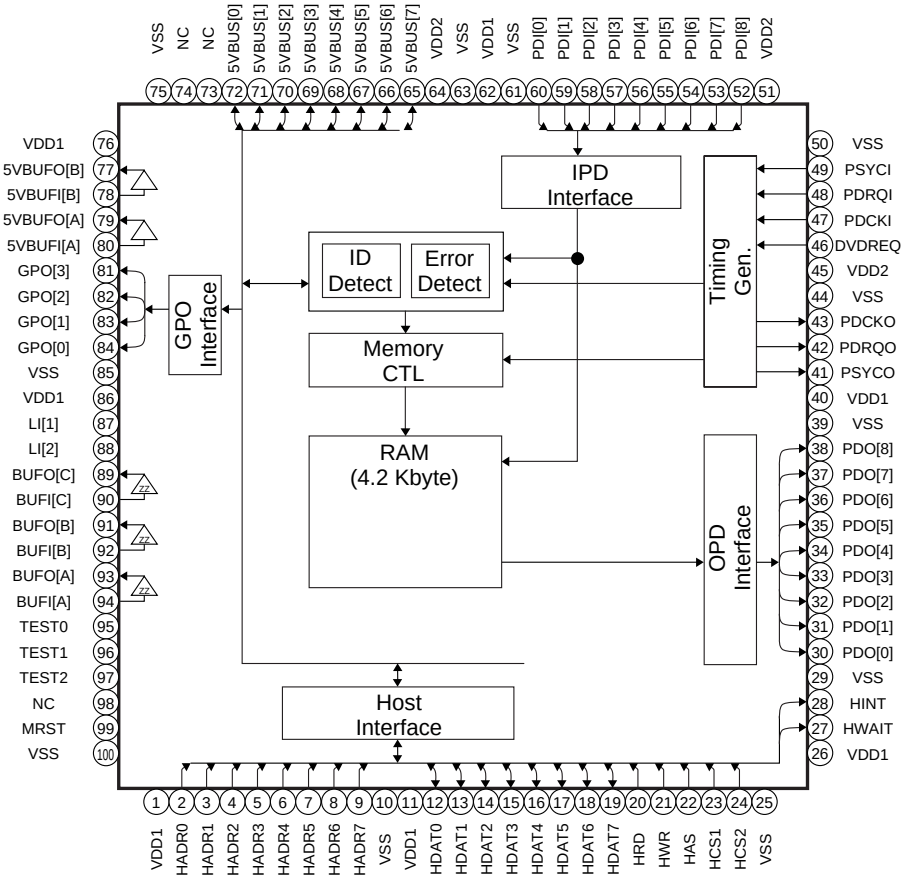


Figure 98 BLOCK DIAGRAM OF IC

IC3801 VHiBA5984FP-1: Motor Driver (BA5984FP)

Pin No.	Terminal Name	Function
1*	LD-FWD	Loading driver FWD input terminal.
2	SL_IN(+)	CH 1 Former stage amplifier nonreverse input terminal.
3	SL_IN(-)	CH 1 Former stage amplifier reverse input terminal.
4	SLOUT	CH 1 Former stage amplifier output terminal.
5	SP_IN(+)	CH 2 Former stage amplifier nonreverse input terminal.
6	SP_IN(-)	CH 2 Former stage amplifier reverse input terminal.
7	SP_OUT	CH 2 Former stage amplifier output terminal.
8	VCC	Power terminal.
9*	LD(-)	Loading driver Negative output.
10*	LD(+)	Loading driver Positive output.
11	SPIN(-)	Driver CH 2 Negative output.
12	SPIN(+)	Driver CH 2 Positive output.
13	SL(-)	Driver CH 1 Negative output.
14	SL(+)	Driver CH 1 Positive output.
15	V04(+)	Driver CH 4 Negative output.
16	V04(-)	Driver CH 4 Positive output.
17	V03(+)	Driver CH 3 Negative output.
18	V03(-)	Driver CH 3 Positive output.
19	GND	Ground terminal.
20	BIAS	Bias input terminal.
21	MUTE	Mute control terminal.
22	FO_OUT	CH 3 Former stage amplifier output terminal.
23	FO_IN(-)	CH 3 Former stage amplifier reverse input terminal.
24	FO_IN(+)	CH 3 Former stage amplifier nonreverse input terminal .
25	TR_OUT	CH 4 Former stage amplifier output terminal.
25	TR_OUT	CH 4 Former stage amplifier output terminal.
26	TR_IN(-)	CH 4 Former stage amplifier reverse input terminal.
27	TR_IN(+)	CH 4 Former stage amplifier nonreverse input terminal.
28*	REV	Loading driver REV input terminal.

Positive and negative output the driver have polarity with respect to input.
(An example: 4 pin terminal voltage ‘HIGH’: 14 pin terminal voltage ‘HIGH’)
In this unit, the terminal with asterisk mark (*) is (open) terminal which is not connected to the outside.

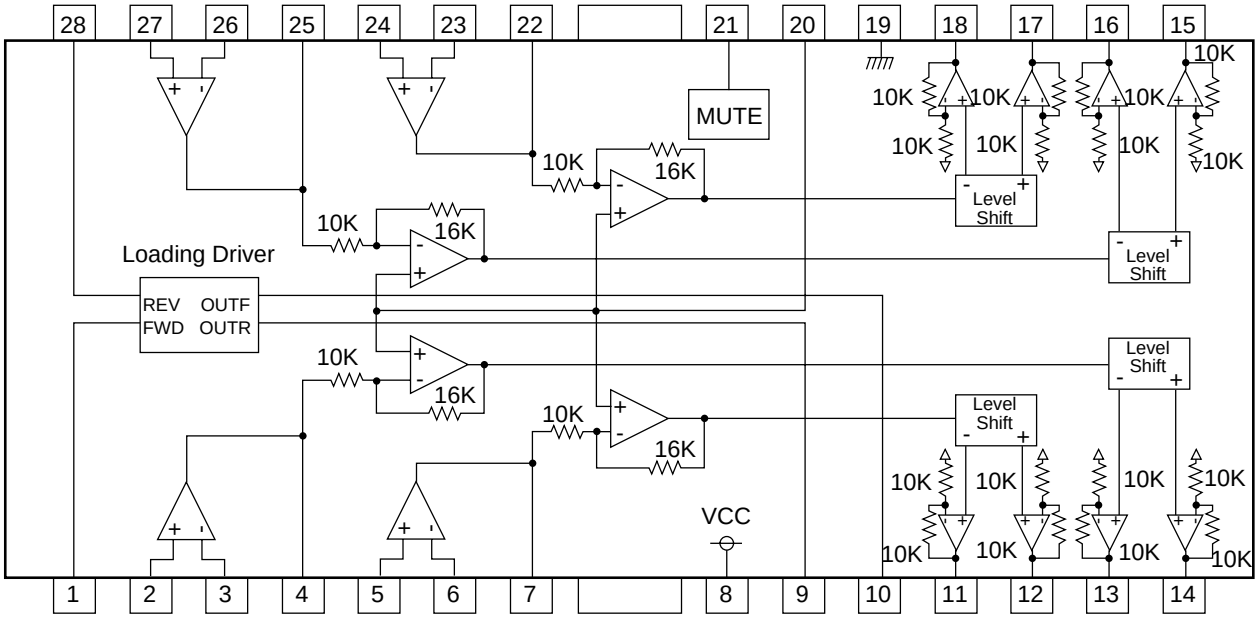
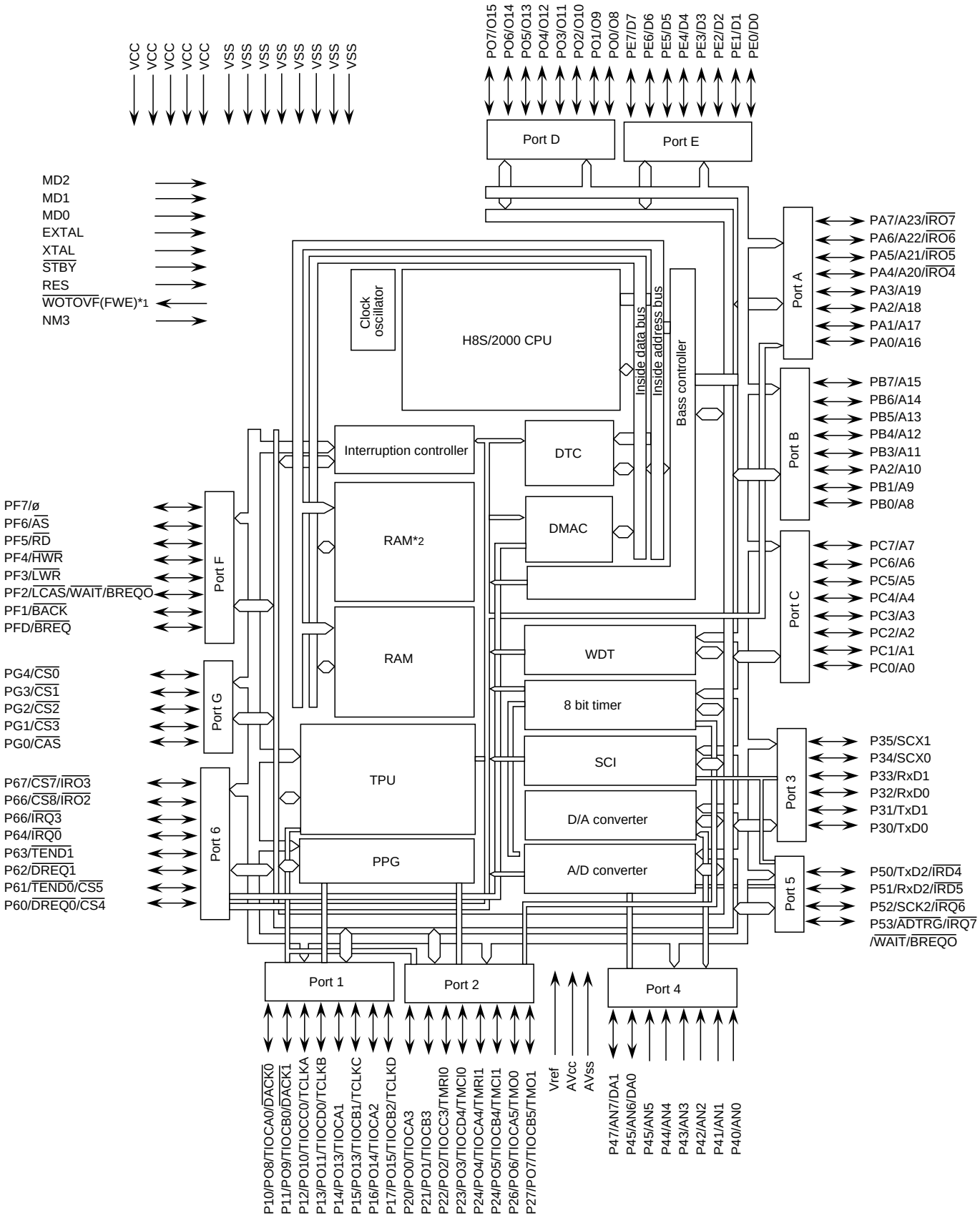


Figure 99 BLOCK DIAGRAM OF IC

IC3504 RH-iX1687GEZZ: DVD Microcomputer (IX1687GE)



NOTE: *1 A FWE terminal is applied only to the F-ZTA edition. A $\overline{\text{WDTOVF}}$ terminal function can't be used by the F-ZTA edition.
*2 A ROM is applied to the master ROM edition, the ZTAT edition, the F-ZTA edition.

Figure 100 BLOCK DIAGRAM OF IC

ICA100 RH-iX0498AWZZ: 7th Order⊿Σ Modulation Conversion LSI (IX0498AW)

Pin No.	Port Name	Input/Output	Function
1	VDDL	Input	L channel digital output section power terminal
2	OUTL (+)	Output	L channel forward output terminal
3	OUTL (–)	Output	L channel reverse output terminal
4	GNDD	—	Digital output section ground terminal
5	OUTR (–)	Output	R channel reverse output terminal
6	OUTR (+)	Output	R channel forward output terminal
7	VDDR	Input	R channel digital output section power terminal
8	VDDX	Input	Oscillation section power terminal
9	XI	Input	Quartz oscillator connection terminal. Clock necessary for the system is generated.
10	XO	Output	Quartz oscillator connection terminal. Clock necessary for the system is generated.
11	GNDX	—	Oscillation section ground terminal
12*	MCK	Output	System clock output terminal
13	TEST	Input	Test terminal. As usual, it is used at "L".
14	NFR1 (+)	Input	R channel forward signal feedback input terminal
15	NFR2 (–)	Input	R channel reverse signal feedback input terminal
16	GNDA	—	Analog ground terminal for AD converter
17	Rch IN	Input	R channel analog input terminal
18	Rch Vref	Input	Reference voltage terminal for R channel
19	Lch Vref	Input	Reference voltage terminal for L channel
20	Lch IN	Input	L channel analog input terminal
21	RESET	Input	Reset terminal. It is reset with "L".
22	NFL2 (–)	Input	L channel reverse signal feedback input terminal
23	NFL1 (+)	Input	L channel forward signal feedback input terminal
24	VDDA	Input	Analog current terminal for AD converter

In this unit, the terminal with asterisk mark (*) is (open) terminal which is not connected to the outside.

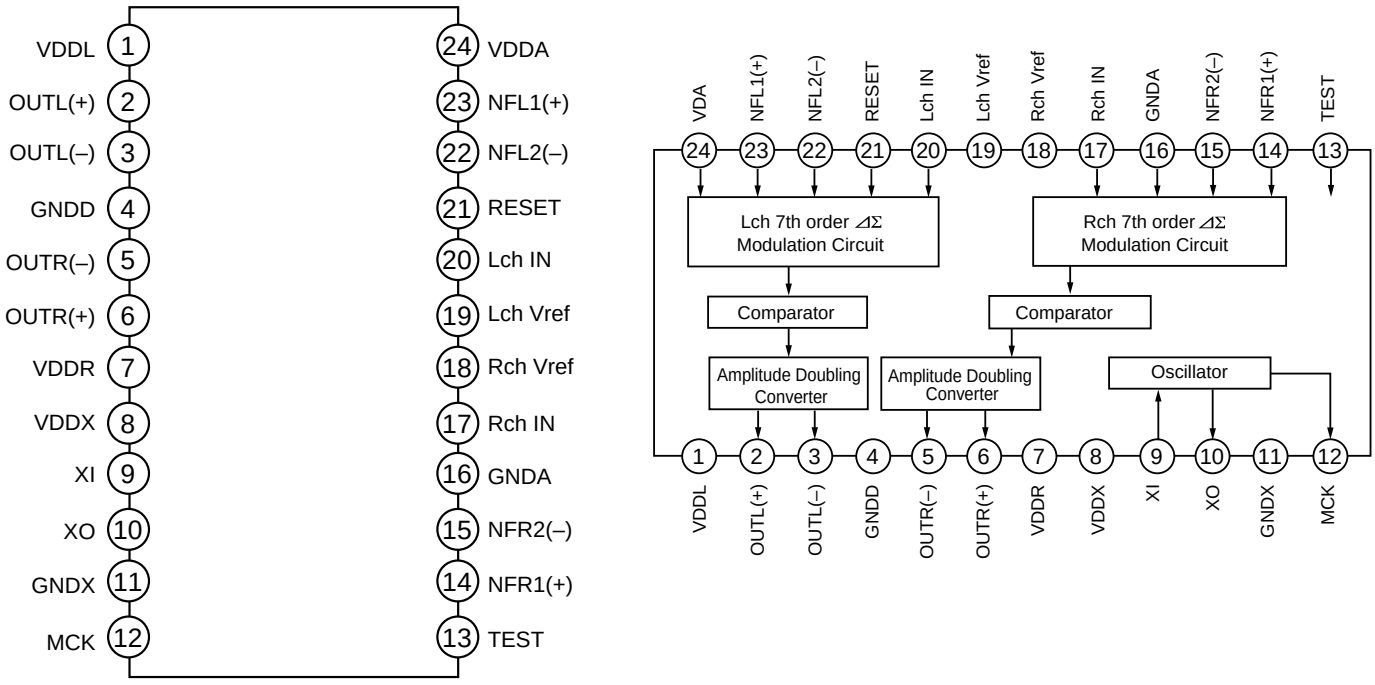
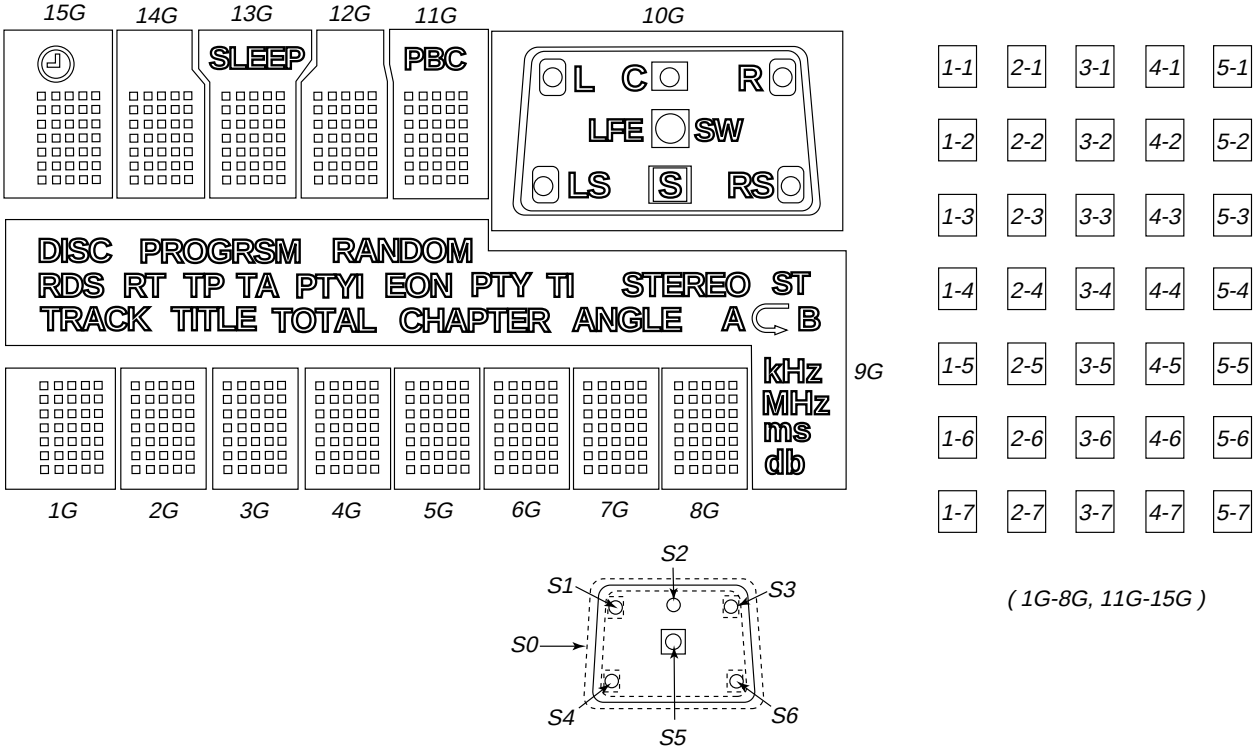


Figure 101 BLOCK DIAGRAM OF IC

FL DISPLAY

FLE01 VVKHNA15LS+-1: FL Display



ANODE CONNECTION

	1G–8G, 12G,14G	9G	10G	11G	13G	16G
P1	1 –1	DISC	S0	1–1	1–1	1–1
P2	2 –1	PROGRAM	S1	2–1	2–1	2–1
P3	3 –1	RANDOM	L	3–1	3–1	3–1
P4	4 –1	RDS	C	4–1	4–1	4–1
P5	5 –1	RT	S2	5–1	5–1	5–1
P6	1 –2	TP	R	1–2	1–2	1–2
P7	2 –2	TA	S3	2–2	2–2	2–2
P8	3 –2	PTYI	LFE	3–2	3–2	3–2
P9	4 –2	EON	S4	4–2	4–2	4–2
P10	5 –2	PTY	SW	5–2	5–2	5–2
P11	1 –3	TI	S5	1–3	1–3	1–3
P12	2 –3	STEREO	LS	2–3	2–3	2–3
P13	3 –3	ST	S	3–3	3–3	3–3
P14	4 –3	TRACK	RS	4–3	4–3	4–3
P15	5 –3	TITLE	S6	5–3	5–3	5–3
P16	1 –4	TOTAL	—	1–4	1–4	1–4
P17	2 –4	CHAPTER	—	2–4	2–4	2–4
P18	3 –4	ANGLE	—	3–4	3–4	3–4
P19	4 –4	A	—	4–4	4–4	4–4
P20	5 –4	⊂	—	5–4	5–4	5–4

	1G–8G, 12G,14G	9G	10G	11G	13G	16G
P21	1 –5	B	—	1–5	1–5	1–5
P22	2 –5	KHz	—	2–5	2–5	2–5
P23	3 –5	MHz	—	3–5	3–5	3–5
P24	4 –5	ms	—	4–5	4–5	4–5
P25	5 –5	dB	—	5–5	5–5	5–5
P26	1 –6	—	—	1–6	1–6	1–6
P27	2 –6	—	—	2–6	2–6	2–6
P28	3 –6	—	—	3–6	3–6	3–6
P29	4 –6	—	—	4–6	4–6	4–6
P30	5 –6	—	—	5–6	5–6	5–6
P31	1 –7	—	—	1–7	1–7	1–7
P32	2 –7	—	—	2–7	2–7	2–7
P33	3 –7	—	—	3–7	3–7	3–7
P34	4 –7	—	—	4–7	4–7	4–7
P35	5 –7	—	—	5–7	5–7	5–7
P36	—	—	—	PBC	SLEEP	⏻

PIN CONNECTION

PIN NO.	84	83	82	81	80	79	78	77	76	75	74	73	72	71	70	69	68	67	66	65	64	63	62	61	60	59	58	57	56	55	54	53	52	51	50	49	48	47	46	45	44	43
CONNECTION	F+	NP	F+	NP	NP	IC	P31	P30	P29	P28	P27	P26	P25	P24	P23	P22	P21	P20	P19	P18	P17	P16	P15	P14	P13	P12	P11	P10	P9	P8	P7	P6	P5	P4	P3	P2	P1	NP	NP	F–	NP	F–

PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42
CONNECTION	F+	NP	F+	NP	NP	IC	P32	P33	P34	P35	P36	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	1G	2G	3G	4G	5G	6G	7G	8G	9G	10G	11G	12G	13G	14G	15G	NP	NP	F–	NP	F–

(Note)
1) F+, –: Filament pin
2) nG: Grid pin
3) Pn: Anode pin
4) NP: No pin
5) IC: Pines are internally connection, and should be electrically open on the PCB

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Explanation of capacitors/resistors parts codes

Capacitors

VCC ..... Ceramic type
VCK..... Ceramic type
VCT ..... Semiconductor type
VC • • MF ..... Cylindrical type (without lead wire)
VC • • MN..... Cylindrical type (without lead wire)
VC • • TV..... Square type (without lead wire)
VC • • TQ ..... Square type (without lead wire)
VC • • CY ..... Square type (without lead wire)
VC • • CZ ..... Square type (without lead wire)
VC • • • • • • • • • J .. The 13th character represents capacity difference.
("J" ±5%, "K" ±10%, "M" ±20%, "N" ±30%,
"C" ±0.25 pF, "D" ±0.5 pF, "Z" +80-20%.)

If there are no indications for the electrolytic capacitors, error is ±20%.

Resistors

VRD ..... Carbon-film type
VRS..... Carbon-film type
VRN ..... Metal-film type
VR • • MF ..... Cylindrical type (without lead wire)
VR • • MN..... Cylindrical type (without lead wire)
VR • • TV..... Square type (without lead wire)
VR • • TQ ..... Square type (without lead wire)
VR • • CY ..... Square type (without lead wire)
VR • • CZ ..... Square type (without lead wire)
VR • • • • • • • • • J .. The 13th character represents error.
("J" ±5%, "F" ±1%, "D" ±0.5%.)

If there are no indications for other parts, the resistors are ±5% carbon-film type.

NOTE:
Parts marked with "⚠" are important for maintaining the safety of the set.
Be sure to replace parts with specified ones for maintaining the safety and performance of the set.

SD-SH111H

INTEGRATED CIRCUITS

NO.	PART CODE	★	PRICE RANK	DESCRIPTION
IC101	VHI74HC07AF-1	J	AF	Buffer Amp.,74HC07AF
IC102	VHIAK4586VQ-1	J	BC	ADC/DAC/DIR Converter, AK4586VQ
IC103	VHPGP1F38R/-1	J	AM	Optical Fiber Data Link, GP1F38R
IC104	VHPGP1F38T/-1	J	AL	Optical Fiber Data Link, GP1F38T
IC105	VHICS493292-1	J	BR	DSP,CS493292
IC106	VHINJM4580M-1	J	AE	Ope Amp.,NJM4580M
IC107	VHITC7WU04U-1	J	AG	Dual2-Input Nand Gate, TC7WU04U
IC108,109	VHINJM4580M-1	J	AE	Ope Amp.,NJM4580M
IC110	VHIBU4066BCF1	J	AD	Analog Switch,BU4066BCF
IC111,112	RH-IX0446AWZZ	J	AL	Voltage Regulator,IX0446AW
IC114,115	VHITVHC574T-1	J	AM	Latch,TVHC574T
IC116	VHIT15N1055-1	J	AV	SRAM,T15N1055
IC117	VHIMX27L212-1	J	AZ	EPROM,MX27L212
IC301	RH-IX0547AWZZ	J	AZ	System Microcomputer, IX0547AW
IC302	VHITA7291F+-1	J	BD	Motor Driver,TA7291F
IC303	VHIPST9127N-1	J	AG	Reset,PST9127N
IC304	VHI74VHCT08-1	J	AF	Gate IC,74VHCT08
IC305	VHINJM7805D-1	J	AH	Voltage Regulator,NJM7805D
IC306	RH-IX0445AWZZ	J	AL	Voltage Regulator,IX0445AW
IC501	VHIM61501FP-1	J	BB	6ch Volume,M61501FP
IC502~504	VHINJM4580M-1	J	AE	Ope Amp.,NJM4580M
IC505	VHINJM4565D-1	J	AC	Mic Amp.,NJM4565D
IC506	VHINJM4580M-1	J	AE	Ope Amp.,NJM4580M
IC508	RH-IX0445AWZZ	J	AL	Voltage Regulator,IX0445AW
IC509	VHINJM7805D-1	J	AH	Voltage Regulator,NJM7805D
IC510	VHINJM4580M-1	J	AE	Ope Amp.,NJM4580M
IC701	VHINJM4565M-1	J	AC	Buffer Amp.,NJM4565M
IC702	VHIKIA7806AP1	J	AF	Constant Voltage Regulator, KIA7806AP
⚠ IC901	VHISTR6667B-1	J	AZ	Switch,STR6667B
IC921	VHINJM2370R-1	J	AH	Voltage Regulator,NJM2370R
IC923	VHISE012N//-1	J	AL	Error Detection Amp.,SE012N
IC924	VHINJM431L/-1	J	AE	Voltage Regulator,NJM431L
IC925	VHIBA9743AV-1	J	AM	DC/DC Converter,BA9743AV
IC926	VHITA78D12F-1	J	AP	Voltage Regulator,TA78D12F
IC3301	VHITA1323F+-1	J	AY	RF Signal Processor,TA1323F
IC3501	RH-IX1689GEZZ	J	BE	Flash ROM,IX1689GE
IC3502	RH-IX0448AWZZ	J	AY	4M EDO Page Mode DRAM, IX0448AW
IC3503	VHIPST9125N-1	J	AF	Reset,PST9125N
IC3504	RH-IX1687GEZZ	J	BE	DVD Microcomputer,IX1687GE
IC3507	VHIBR93L66F-1	J	AL	EEPROM,BR93L66F
IC3508	RH-IX1761GEZZ	J	BC	Track Buffer Interface,IX1761GE
IC3601	RH-IX1720GEZZ	J	BS	DVD Decoder,IX1720GE
IC3602,3603	RH-IX0449AWZZ	J	BD	16M S-DRAM,IX0449AW
IC3661	RH-IX0445AWZZ	J	AL	Voltage Regulator,IX0445AW
IC3662	RH-IX0472AWZZ	J	AL	Voltage Regulator,IX0472AW
IC3701	VHITC94A03F-1	J	BH	Servo ECC,TC94A03F
IC3702	RH-IX0447AWZZ	J	AY	4M EDO Page Mode DRAM, IX0447AW
IC3705	VHINJM2904M-1	J	AH	Ope Amp.,NJM2904M
IC3801	VHIBA5984FP-1	J	AR	Motor Driver,BA5984FP
IC3802	VHITC7W53FU-1	J	AH	Multiplexer,TC7W53FU
ICA100	RH-IX0498AWZZ	J	AZ	7th Order ⊿Σ Modulation Conversion LSI,IX0498AW
ICA106,107	VHISLA5505M-1	J	AZ	Switching Audio Power Amp., SLA5505M
ICA110	VHITC74AC8T-1	J	AH	Quad 2 Input and Gate, TC74AC8T
ICE01	VHIM66005-0-1	J	AX	FL Driver,M66005
ICE02	RH-IX0445AWZZ	J	AL	Voltage Regulator,IX0445AW
ICE03,04	VHIKIA7805AP1	J	AF	Constant Voltage Regulator, KIA7805AP
ICE05	VHLGP1UD271-1	J	AL	Remote Sensor,GP1UD271
ICT01	VHILC72722P-1	J	AY	RDS Decorder,LC72722P
ICT02	VHIVHCT08A+-1	J	AF	Ope Amp.,VHCT08A
ICV01	VHICXA2125Q-1	J	BC	SCART Video Switch, CXA2125Q
ICV02	VHIHC4053FT-1	J	AH	Switch,HC4053FT
ICV07	VHINJM7806D-1	J	AH	Voltage Regulator,NJM7806D

TRANSISTORS

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
Q101	VSKRA107S//-1	J	AB	Digital,NPN,KRA107 S
Q102	VSKRC107S//-1	J	AB	Digital,NPN,KRC107 S
Q103	VSKRA107S//-1	J	AB	Digital,NPN,KRA107 S
Q104,105	VSKRC107S//-1	J	AB	Digital,NPN,KRC107 S
Q301	VSKRC107S//-1	J	AB	Digital,NPN,KRC107 S
Q302,303	VSKRC104S//-1	J	AC	Digital,NPN,KRC104 S
Q304	VSKRC107S//-1	J	AB	Digital,NPN,KRC107 S
Q306	VSKRA106S//-1	J	AB	Digital,PNP,KRA106 S
Q501,502	VS2SK208///-1	J	AD	FET,2SK208
Q503	VSKTA1504GR-1	J	AB	Silicon,PNP,KTA1504 GR
Q504	VSKTC3875GR-1	J	AB	Silicon,NPN,KTC3875 GR
Q505	VSKTA1504GR-1	J	AB	Silicon,PNP,KTA1504 GR
Q506	VS2SK1847//-1	J	AD	FET,2SK1847
Q507~512	VSKTC3875GR-1	J	AB	Silicon,NPN,KTC3875 GR
Q513~515	VSKRA107S//-1	J	AB	Digital,NPN,KRA107 S
Q516	VSKTA1504GR-1	J	AB	Silicon,PNP,KTA1504 GR
Q517,518	VSKTC2875B/-1	J	AC	Silicon,NPN,KTC2875 B
Q520	VS2SA2012++-1	J	AF	Silicon,PNP,2SA2012
Q521	VS2SC5565++-1	J	AG	Silicon,NPN,2SC5565
Q522	VSKRC107S//-1	J	AB	Digital,NPN,KRC107 S
Q523	VSKTC3875GR-1	J	AB	Silicon,NPN,KTC3875 GR
Q524	VSKRC107S//-1	J	AB	Digital,NPN,KRC107 S
Q525	VS2SC5565++-1	J	AG	Silicon,NPN,2SC5565
Q526	VS2SA2012++-1	J	AF	Silicon,PNP,2SA2012
Q527	VSKTC3875GR-1	J	AB	Silicon,NPN,KTC3875 GR
Q529	VSKRA107S//-1	J	AB	Digital,NPN,KRA107 S
Q530	VSKTC3875GR-1	J	AB	Silicon,NPN,KTC3875 GR
Q531	VSKRC107S//-1	J	AB	Digital,NPN,KRC107 S
Q532	VSKRA107S//-1	J	AB	Digital,NPN,KRA107 S
Q533	VSKRA102S//-1	J	AB	Digital,PNP,KRA102 S
Q701~711	VSKTC3875GR-1	J	AB	Silicon,NPN,KTC3875 GR
Q712	VSKTA1504GR-1	J	AB	Silicon,PNP,KTA1504 GR
Q713	VSKTC3875GR-1	J	AB	Silicon,NPN,KTC3875 GR
Q714	VSKTA1504GR-1	J	AB	Silicon,PNP,KTA1504 GR
Q715	VSKTC3875GR-1	J	AB	Silicon,NPN,KTC3875 GR
Q716	VSKTA1504GR-1	J	AB	Silicon,PNP,KTA1504 GR
Q717,718	VSKTC3875GR-1	J	AB	Silicon,NPN,KTC3875 GR
Q721~732	VSKTC3875GR-1	J	AB	Silicon,NPN,KTC3875 GR
⚠ Q901~903	VSKTA1266GR-1	J	AB	Silicon,PNP,KTA1266 GR
⚠ Q904	VS2SC3852A+-1	J	AK	Silicon,NPN,2SC3852 A
Q905	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
Q921	VSKTD2058Y/-1	J	AF	Silicon,NPN,KTD2058 Y
Q922	VSKTA1023Y/-1	J	AE	Silicon,PNP,KTA1023 Y
Q923	VS2SD1858R2-1	J	AC	Silicon,NPN,2SD1858 R2
Q924	VSKTA1273Y/-1	J	AE	Silicon,PNP,KTA1273 Y
Q925,926	VS2SB1142S+-1	J	AG	Silicon,PNP,2SB1142 S
Q927	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
Q928	VSKRC107M//-1	J	AC	Digital,NPN,KRC107 M
Q930	VSKTA1266GR-1	J	AB	Silicon,PNP,KTA1266 GR
Q931	VSKTC3199GR-1	J	AB	Silicon,NPN,KTC3199 GR
Q932	VS2SD1858R2-1	J	AC	Silicon,NPN,2SD1858 R2
Q933	VSKRC107M//-1	J	AC	Digital,NPN,KRC107 M
Q3202~3205	VSKTA1504Y/-1	J	AB	Silicon,PNP,KTA1504 Y
Q3301	VSKTA1504Y/-1	J	AB	Silicon,PNP,KTA1504 Y
Q3302,3303	VS2SA1955A/-1	J	AC	Silicon,PNP,2SA1955 A
Q3307	VSKRC104S//-1	J	AC	Digital,NPN,KRC104 S
Q3502	VSKTA1504Y/-1	J	AB	Silicon,PNP,KTA1504 Y
Q3503	VSKRC104S//-1	J	AC	Digital,NPN,KRC104 S
Q3701,3702	VSKRC104S//-1	J	AC	Digital,NPN,KRC104 S
Q5001~5003	VSKTA1504Y/-1	J	AB	Silicon,PNP,KTA1504 Y
Q5004~5012	VS2SC2412KR-1	J	AB	Silicon,NPN,2SC2412 KR
Q5013	VSKTA1504Y/-1	J	AB	Silicon,PNP,KTA1504 Y
Q5014~5016	VS2SC2412KR-1	J	AB	Silicon,NPN,2SC2412 KR
QE01~08	VSKRC107S//-1	J	AB	Digital,NPN,KRC107 S
QE09,10	VSKTC3875GR-1	J	AB	Silicon,NPN,KTC3875 GR
QE11,12	VS2SB1424R/-1	J	AC	Silicon,PNP,2SB1424 R
QE13,14	VSKTC3875GR-1	J	AB	Silicon,NPN,KTC3875 GR
QT01	VSKTC3875GR-1	J	AB	Silicon,NPN,KTC3875 GR
QV01~05	VSKTC4375Y+-1	J	AE	Silicon,NPN,KTC4375 Y
QV09~11	VSKTC4375Y+-1	J	AE	Silicon,NPN,KTC4375 Y
QV12	VSKTA1504GR-1	J	AB	Silicon,PNP,KTA1504 GR
QV13	VS2SC3052F/-1	J	AB	Silicon,NPN,2SC3052 F
QV14,15	VSKRC107S//-1	J	AB	Digital,NPN,KRC107 S
QV16	VSKRA104S//-1	J	AC	Digital,NPN,KRA104 S
QV17	VSKTC2875B/-1	J		Digital,NPN,KTC2875 B
QV18	VSKRC111S//-1	J	AC	Digital,NPN,KRC111 S
QV19	VSKRA107S//-1	J	AB	Digital,NPN,KRA107 S
QV20,21	VSKTC4375Y+-1	J	AE	Digital,NPN,KTC4375 Y

NO.	PART CODE	★	PRICE RANK	DESCRIPTION
DIODES				
D101~104	VHDKDS160//-1	J	AB	Silicon,KDS160
D301~311	VHDKDS160//-1	J	AB	Silicon,KDS160
D501~509	VHDKDS160//-1	J	AB	Silicon,KDS160
D511~513	VHDKDS160//-1	J	AB	Silicon,KDS160
D515~518	VHDKDS160//-1	J	AB	Silicon,KDS160
D520~527	VHDKDS160//-1	J	AB	Silicon,KDS160
D529~532	VHDKDS160//-1	J	AB	Silicon,KDS160
D701~722	VHDKDS160//-1	J	AB	Silicon,KDS160
D725~733	VHDKDS160//-1	J	AB	Silicon,KDS160
D734	VHDSFPW56++-1	J	AE	Silicon,SFPW56
D735,736	VHDSFPL52V/-1	J	AE	Silicon,SFPL52V
⚠ D902,903	VHDSFPL52V/-1	J	AE	Silicon,SFPL52V
⚠ D904	VHDAW04++++-1	J	AE	Silicon,AW04
⚠ D905	VHDSFPL52V/-1	J	AE	Silicon,SFPL52V
⚠ D906	VHDSARS02++-1	J	AG	Silicon,SARS02
⚠ D907	VHDTS6B05GM-1	J	AK	Silicon,TS6B05GM
D921	RH-DX0522CEZZ	J	AN	Silicon,Schottky Barrier,FMB-26L
D923	RH-DX0522CEZZ	J	AN	Silicon,Schottky Barrier,FMB-26L
D924,925	VHDSFPB76++-1	J	AF	Silicon,SFPB76
D926	VHDAK06++++-1	J	AE	Silicon,AK06
D927	VHDSFPW56++-1	J	AE	Silicon,SFPW56
D929,930	VHDRB060L40-1	J	AF	Silicon,RB060L40
⚠ D931	VHDS1VBA60+-1	J	AG	Silicon,S1VBA60
D932,933	VHD1N4004S/-1	J	AB	Silicon,1N4004S
D934~937	VHDEK16++++-1	J	AG	Silicon,EK16
D938,939	VHD1N4004S/-1	J	AB	Silicon,1N4004S
D3301	VHDDAP202K/-1	J	AB	Silicon,DAP202K
D3501	VHDDAP202K/-1	J	AB	Silicon,DAP202K
DA100~103	VHDKDS160//-1	J	AB	Silicon,KDS160
DA126~129	VHD1SS361//-1	J	AB	Silicon,1SS361
DA130	VHDKDS226//-1	J	AB	Silicon,KDS226
DA251~258	VHDSFPW56++-1	J	AE	Silicon,SFPW56
DE01	VHDKDS160//-1	J	AB	Silicon,KDS160
DE03~15	VHDKDS160//-1	J	AB	Silicon,KDS160
DT01	VHDKDS160//-1	J	AB	Silicon,KDS160
DV01~06	VHDKDS160//-1	J	AB	Silicon,KDS160
DV07,08	VHDKDS226//-1	J	AB	Silicon,KDS226
DV09~14	VHDKDS160//-1	J	AB	Silicon,KDS160
DV15	VRS-CY1JB222J	J	AB	2.2 kohms,1/16W
DV16~18	VHDKDS160//-1	J	AB	Silicon,KDS160
LEDE01,02	VHP31URT21+-1	J	AD	LED,Red,31URT21
LEDE03	VHP3105VGT+-1	J	AD	LED,Green,3105VGT
LEDE04	VHP31URT21+-1	J	AD	LED,Red,31URT21
LEDE05	VHP3105T1-111	J	AD	LED,Orange,3105T1
LEDE06	VHP31URT21+-1	J	AD	LED,Red,31URT21
LEDE07	VHP3105T1-111	J	AD	LED,Orange,3105T1
LEDE08	VHPSELU2EC+-V	J	AP	LED,Blue,SELU2EC
ZD101,102	VHEUDZS8R2B-1	J	AC	Zener,8.2V,UDZS8.2B
ZD501~503	VHEUDZS7R5B-1	J	AC	Zener,7.5V,UDZS7.5B
ZD504~511	VHEDZ120BSC-1	J		Zener,12V,DZ12BSC
⚠ ZD901	VHEDZ100BSB-1	J	AB	Zener,10V,DZ10BSB
⚠ ZD902	VHEDZ200BSB-1	J	AB	Zener,20V,DZ20BSB
⚠ ZD903	VHEDZ6R8BSC-1	J	AB	Zener,6.8V,DZ6.8BSC
ZD921,922	VHEDZ130BSC-1	J	AB	Zener,13V,DZ13BSC
ZD923	VHEDZ330BSD-1	J	AC	Zener,33V,DZ33BSD
ZD924	VHEDZ270BSA-1	J	AB	Zener,27V,DZ27BSA
ZD926	VHEDZ2R7BSA-1	J	AB	Zener,2.7V,DZ2.7BSA
ZDA110	VHEMA8051M/-1	J	AC	Zener,5.1V,MA8051M
ZDE01	VHEHZ3ALL//-1	J	AC	Zener,3V,HZ3ALL
ZDE02	VHEKDZ2R7V+-1	J	AC	Zener,2.7V,KDZ2.7V
FILTERS				
FL3501	RFILC0207GEZZ	J	AF	20 MHz
FL3701	RCRMC0001GEZZ	J	AH	22.5792 MHz
TRANSFORMERS				
⚠ T901	RTRNP0423AWZZ	J	AR	Power
⚠ T991	RTRNZ0003AWZZ	J	AZ	Switching Power
COILS				
FB3301	VPANM100J0000	J	AC	10 µH
FB3601	RCILC0353AFZZ	J	AB	Tip Solid Induction,100mA
FB3603~3606	RCILC0353AFZZ	J	AB	Tip Solid Induction,100mA
L105	VPBNN2R2K0000	J	AC	2.2 µH
⚠ L902	RCILZ0046AWZZ	J	AU	AC Line Filter

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
⚠ L903	RCILZ0045AWZZ	J	AU	AC Line Filter
L921,922	RCILZ0043AWZZ	J	AG	Coil,4.7 µH
L923,924	RCILZ0044AWZZ	J	AG	Coil,100 µH
L950	RCILZ0047AWZZ	J	AG	Coil
L3302	VPANM100J0000	J	AC	10 µH
L3601,3602	VPANM470J0000	J	AC	47 µH
L3701,3702	VPANM1R0J0000	J	AC	1 µH
L5002~5007	VPANM270J0000	J	AD	27 µH
L5008~5010	RCILC0353AFZZ	J	AB	Tip Solid Induction,100mA
L5012,5013	VPANM270J0000	J	AD	27 µF
LA100	RCILZ0036AWZZ	J	AM	Coil
LA102	RCILZ0036AWZZ	J	AM	Coil
LA104	RCILZ0036AWZZ	J	AM	Coil
LA106	RCILZ0036AWZZ	J	AM	Coil
LA128,129	RCORF0020AWZZ	J	AD	Core,Ferrite Core
LA130~133	RCORF0023AWZZ	J	AB	Core,Ferrite Core
LE01,02	VP-XH2R2K0000	J	AB	2.2 µH,Choke
LE03	VP-CH101K0000	J	AB	100 µH,Choke
LF51	VP-XH2R2K0000	J	AB	2.2 µH,Choke
LFA01,02	RCILZ0040AWZZ	J	AH	Coil
LFA03,04	RCILZ0039AWZZ	J	AH	Coil
LFA05,06	RCILZ0040AWZZ	J	AH	Coil
VARIABLE RESISTORS				
VRA100	RVR-M0024AWZZ	J	AC	4.7 kohms (B),Semi-VR [L-CH Output Offset Adjustment]
VRA101	RVR-M0024AWZZ	J	AC	4.7 kohms (B),Semi-VR [R-CH Output Offset Adjustment]
VIBRATORS				
CXA100	RCRSP0021AWZZ	J	AG	Crystal,11.2896 MHz
X101	RCRSC0003AWZZ	J	AH	Crystal,12.288 MHz
X301	RCRSC0004AFZZ	J	AS	Crystal,45 MHz
X3601	RCRSC0002AWZZ	J	AN	Crystal,27.0 MHz
XT01	RCRSC0007AWZZ	J	AF	Crystal,4.332 MHz
THERMISTOR				
⚠ P501	RH-QX0006AWZZ	J	AE	Posistor,4.7 ohms
⚠ PS921	VHHZPP221A+-1	J	AL	Thermistor,Positive/Negative C
⚠ PS922	RH-QX0015AWZZ	J	AG	Posistor,1.5 ohms
⚠ PS924	RH-QX0015AWZZ	J	AG	Posistor,1.5 ohms
⚠ PS925	RH-QX0014AWZZ	J	AK	Posistor,1.4 ohms
⚠ TH901	RH-QX0013AWZZ	J	AL	Thermistor,Circuit Protection
CAPACITORS				
C101	VCKYCY1EF104Z	J	AA	0.1 µF,25V
C102	VCEAPS106AF1C	J	AB	10 µF,16V,Electrolytic
C103,104	VCKYCY1EF104Z	J	AA	0.1 µF,25V
C105	VCEAPS106AF1C	J	AB	10 µF,16V,Electrolytic
C106,107	VCKYCY1EF104Z	J	AA	0.1 µF,25V
C108	VCCCCY1HH470J	J	AA	47 pF (CH),50V
C109	VCEAPS106AF1C	J	AB	10 µF,16V,Electrolytic
C110	VCKYCY1EF223Z	J	AB	0.022 µF,25V
C112	VCEAPS106AF1C	J	AB	10 µF,16V,Electrolytic
C113	VCKYCY1EF104Z	J	AA	0.1 µF,25V
C114	VCEAPS106AF1C	J	AB	10 µF,16V,Electrolytic
C115	VCKYCY1EF104Z	J	AA	0.1 µF,25V
C116	VCKYTV1CB105K	J	AC	1 µF,16V
C117	VCCCCY1HH102J	J	AA	0.001 µF (CH),50V
C118~120	VCKYCY1EF104Z	J	AA	0.1 µF,25V
C121	VCEAPS225AF1H	J	AB	2.2 µF,50V,Electrolytic
C122	VCKYTV1CB105K	J	AC	1 µF,16V
C123	VCKYCY1EF104Z	J	AA	0.1 µF,25V
C124	VCKYTV1CB105K	J	AC	1 µF,16V
C125	VCKYCY1EF104Z	J	AA	0.1 µF,25V
C126,127	VCKYCY1EF223Z	J	AB	0.022 µF,25V
C129	VCKYTV1CB105K	J	AC	1 µF,16V
C130	VCKYCY1EF104Z	J	AA	0.1 µF,25V
C131	VCKYCY1HB471K	J	AA	470 pF,50V
C133	VCEAPS225AF1H	J	AB	2.2 µF,50V,Electrolytic
C134	VCKYCY1HB103K	J	AA	0.01 µF,50V
C135	VCCCCY1HH220J	J	AA	22 pF (CH),50V
C136	VCEAPS476AF1C	J	AC	47 µF,16V,Electrolytic
C137	VCKYCY1EF223Z	J	AB	0.022 µF,25V
C139	VCCCCY1HH220J	J	AA	22 pF (CH),50V
C140	VCKYCY1EF104Z	J	AA	0.1 µF,25V

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NO.	PART CODE	★	PRICE RANK	DESCRIPTION
C141	VCEAPS106AF1C	J	AB	10 µF,16V,Electrolytic
C142	VCKYCY1EF223Z	J	AB	0.022 µF,25V
C143	VCKYCY1HB102K	J	AA	0.001 µF,50V
C144	VCKYCY1EF223Z	J	AB	0.022 µF,25V
C145,146	VCEAPS106AF1C	J	AB	10 µF,16V,Electrolytic
C147	VCKYCY1EF223Z	J	AB	0.022 µF,25V
C148	VCEAPS476AF1C	J	AC	47 µF,16V,Electrolytic
C149	VCEAPS106AF1C	J	AB	10 µF,16V,Electrolytic
C150	VCKYCY1EF223Z	J	AB	0.022 µF,25V
C151	VCKYCY1EF104Z	J	AA	0.1 µF,25V
C152	VCEAPS106AF1C	J	AB	10 µF,16V,Electrolytic
C153	VCKYCY1EF223Z	J	AB	0.022 µF,25V
C155	VCKYCY1EF223Z	J	AB	0.022 µF,25V
C156	VCEAPS106AF1C	J	AB	10 µF,16V,Electrolytic
C157,158	VCCCCY1HH101J	J	AA	100 pF (CH),50V
C159	VCKYCY1EF104Z	J	AA	0.1 µF,25V
C165~168	VCEAPS106AF1C	J	AB	10 µF,16V,Electrolytic
C169~172	VCCCCY1HH101J	J	AA	100 pF (CH),50V
C173,174	VCKYCY1EF223Z	J	AB	0.022 µF,25V
C175,176	VCEAPS106AF1C	J	AB	10 µF,16V,Electrolytic
C177,178	VCKYCY1EB153K	J	AA	0.015 µF,25V
C179,180	VCEAPS106AF1C	J	AB	10 µF,16V,Electrolytic
C181,182	VCKYCY1EB153K	J	AA	0.015 µF,25V
C184	VCEAPS106AF1C	J	AB	10 µF,16V,Electrolytic
C185	VCCCCY1HH470J	J	AA	47 pF (CH),50V
C186	VCKYCY1EB153K	J	AA	0.015 µF,25V
C187	VCKYCY1HB103K	J	AA	0.01 µF,50V
C188	VCKYCY1EB153K	J	AA	0.015 µF,25V
C189~191	VCEAPS106AF1C	J	AB	10 µF,16V,Electrolytic
C192	VCKYCY1EF223Z	J	AB	0.022 µF,25V
C193	VCEAPS106AF1C	J	AB	10 µF,16V,Electrolytic
C194	VCKYCY1EF223Z	J	AB	0.022 µF,25V
C195,196	VCKYCY1EF104Z	J	AA	0.1 µF,25V
C197	VCEAPS476AF1C	J	AC	47 µF,16V,Electrolytic
C198	VCKYCY1EF104Z	J	AA	0.1 µF,25V
C199	VCEAPS476AF1C	J	AC	47 µF,16V,Electrolytic
C200	VCCCCY1HH101J	J	AA	100 pF (CH),50V
C201	VCKYCY1EF223Z	J	AB	0.022 µF,25V
C202	VCCCCY1HH101J	J	AA	100 pF (CH),50V
C203,204	VCEAPS476AF1C	J	AC	47 µF,16V,Electrolytic
C205,206	VCCCCY1HH101J	J	AA	100 pF (CH),50V
C210~213	VCEAPS106AF1C	J	AB	10 µF,16V,Electrolytic
C301,302	VCKYCY1EF223Z	J	AB	0.022 µF,25V
C303	VCEAPS106AF1C	J	AB	10 µF,16V,Electrolytic
C304	VCKYCY1EF223Z	J	AB	0.022 µF,25V
C305~307	VCCCCY1HH470J	J	AA	47 pF (CH),50V
C308	VCKYCY1HB102K	J	AA	0.001 µF,50V
C309,310	VCCCCY1HH150J	J	AA	15 pF (CH),50V
C311	VCCCCY1HH180J	J	AA	18 pF (CH),50V
C312	VCKYCY1EF223Z	J	AB	0.022 µF,25V
C313	VCEAPS107AF1A	J	AD	100 µF,10V,Electrolytic
C314	VCEAPS476AF1C	J	AC	47 µF,16V,Electrolytic
C315	VCEAPS227AF0J	J	AC	220 µF,6.3V,Electrolytic
C316	VCKYCY1EB103K	J	AA	0.01 µF,25V
C317	VCEAPS475AF1E	J	AB	4.7 µF,25V,Electrolytic
C318	VCKYCY1EB103K	J	AA	0.01 µF,25V
C319	VCEAPS106AF1C	J	AB	10 µF,16V,Electrolytic
C320	VCKYCY1EF223Z	J	AB	0.022 µF,25V
C321	VCEAPS106AF1C	J	AB	10 µF,16V,Electrolytic
C322	VCKYCY1EF223Z	J	AB	0.022 µF,25V
C323	VCKYCY1EF473Z	J	AB	0.047 µF,25V
C324	VCKYCY1EF223Z	J	AB	0.022 µF,25V
C325	VCEAPS105AF1H	J	AB	1 µF,50V,Electrolytic
C326,327	VCKYCY1EF104Z	J	AA	0.1 µF,25V
C328~332	VCEAPS107AF1C	J	AC	100 µF,16V,Electrolytic
C333,334	VCCCCY1HH470J	J	AA	47 pF (CH),50V
C335	VCEAPS227AF0J	J	AC	220 µF,6.3V,Electrolytic
C336	VCCCCY1HH101J	J	AA	100 pF (CH),50V
C339,340	VCEAPS476AF1C	J	AC	47 µF,16V,Electrolytic
C441	VCEAPS226AF1C	J	AC	22 µF,16V,Electrolytic
C442	VCKYCY1HB102K	J	AA	0.001 µF,50V
C501	VCKYCY1HB102K	J	AA	0.001 µF,50V
C502,503	VCEAPS106AF1C	J	AB	10 µF,16V,Electrolytic
C504	VCKYCY1HB682K	J	AA	0.0068 µF,50V
C505	VCKYCY1CB683K	J	AB	0.068 µF,16V
C506,507	VCKYCY1HB682K	J	AA	0.0068 µF,50V
C508	VCKYCY1CB683K	J	AB	0.068 µF,16V
C509	VCKYCY1HB682K	J	AA	0.0068 µF,50V
C510,511	VCEAPS106AF1C	J	AB	10 µF,16V,Electrolytic
C512~515	VCKYCY1EB104K	J	AD	0.1 µF,25V
C516,517	VCEAPS107AF1A	J	AD	100 µF,10V,Electrolytic
C518	VCEAPS476AF1A	J	AD	47 µF,10V,Electrolytic

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C519~527	VCEAPS106AF1C	J	AB	10 µF,16V,Electrolytic
C528	VCEAPS107AF1C	J	AC	100 µF,16V,Electrolytic
C529	VCEAPS106AF1C	J	AB	10 µF,16V,Electrolytic
C530	VCKYCY1EF223Z	J	AB	0.022 µF,25V
C531	VCEAPS106AF1C	J	AB	10 µF,16V,Electrolytic
C532,533	VCKYCY1EF223Z	J	AB	0.022 µF,25V
C534,535	VCCCCY1HH330J	J	AA	33 pF (CH),50V
C536~539	VCEAPS106AF1C	J	AB	10 µF,16V,Electrolytic
C540	VCKYCY1EF223Z	J	AB	0.022 µF,25V
C541,542	VCEAPS476AF1C	J	AC	47 µF,16V,Electrolytic
C543	VCKYCY1EF223Z	J	AB	0.022 µF,25V
C544,545	VCCCCY1HH330J	J	AA	33 pF (CH),50V
C546,547	VCEAPS107AF1A	J	AD	100 µF,10V,Electrolytic
C548,549	VCEAPS106AF1C	J	AB	10 µF,16V,Electrolytic
C550,551	VCKYCY1EF223Z	J	AB	0.022 µF,25V
C552,553	VCCCCY1HH330J	J	AA	33 pF (CH),50V
C554~557	VCEAPS106AF1C	J	AB	10 µF,16V,Electrolytic
C558	VCEAPS335AF1H	J	AB	3.3 µF,50V,Electrolytic
C559	VCKYCY1EF223Z	J	AB	0.022 µF,25V
C560	VCEAPS107AF1C	J	AC	100 µF,16V,Electrolytic
C561	VCCCCY1HH330J	J	AA	33 pF (CH),50V
C562	VCEAPS107AF1C	J	AC	100 µF,16V,Electrolytic
C563	VCEAPS106AF1C	J	AB	10 µF,16V,Electrolytic
C564	VCKYCY1HB102K	J	AA	0.001 µF,50V
C565	VCEAPS106AF1C	J	AB	10 µF,16V,Electrolytic
C566,567	VCKYCY1HB102K	J	AA	0.001 µF,50V
C568	VCEAPS106AF1C	J	AB	10 µF,16V,Electrolytic
C572	VCKYCY1HB102K	J	AA	0.001 µF,50V
C573~576	VCEAPS107AF1C	J	AC	100 µF,16V,Electrolytic
C577	VCEAPS226AF1C	J	AC	22 µF,16V,Electrolytic
C578	VCKYCY1EF223Z	J	AB	0.022 µF,25V
C579	VCEAPS107AF1C	J	AC	100 µF,16V,Electrolytic
C580	VCKYCY1EF223Z	J	AB	0.022 µF,25V
C581	VCEAPS226AF1C	J	AC	22 µF,16V,Electrolytic
C582	VCKYCY1EF223Z	J	AB	0.022 µF,25V
C583	VCEAPS107AF1C	J	AC	100 µF,16V,Electrolytic
C584	VCKYCY1EF223Z	J	AB	0.022 µF,25V
C585	VCEAPS105AF1H	J	AB	1 µF,50V,Electrolytic
C586	VCKYCY1EF223Z	J	AB	0.022 µF,25V
C587	VCKYCY1HB473K	J	AB	0.047 µF,50V
C591	VCEAPS107AF1C	J	AC	100 µF,16V,Electrolytic
C592	VCKYCY1CF334Z	J	AA	0.33 µF,16V
C593	VCEAPS476AF1C	J	AC	47 µF,16V,Electrolytic
C594	VCKYCY1CF334Z	J	AA	0.33 µF,16V
C595,596	VCEAPS476AF1C	J	AC	47 µF,16V,Electrolytic
C597,598	VCKYCY1EF223Z	J	AB	0.022 µF,25V
C599,600	VCKYCY1HB102K	J	AA	0.001 µF,50V
C601	VCKYCY1HB103K	J	AA	0.01 µF,50V
C602,603	VCEAPS226AF1C	J	AC	22 µF,16V,Electrolytic
C604~607	VCEAPS106AF1C	J	AB	10 µF,16V,Electrolytic
C608,609	VCKYCY1EF104Z	J	AA	0.1 µF,25V
C610,611	VCEAPS107AF1A	J	AD	100 µF,10V,Electrolytic
C612~615	VCEAPS476AF1C	J	AC	47 µF,16V,Electrolytic
C616,617	VCCCCY1HH101J	J	AA	100 pF (CH),50V
C620	VCKYCY1CB104K	J	AB	0.1 µF,16V
C621	VCEAPS106AF1C	J	AB	10 µF,16V,Electrolytic
C622,623	VCKYCY1EB104K	J	AD	0.1 µF,25V
C624	VCKYCY1EF223Z	J	AB	0.022 µF,25V
C625	VCCCCY1HH101J	J	AA	100 pF (CH),50V
C706	VCEAZA1CW106M	J	AC	10 µF,16V,Electrolytic
C707,708	VCKYCY1HB222K	J	AA	0.0022 µF,50V
C709,710	VCKYCY1EF223Z	J	AB	0.022 µF,25V
C711	VCKYCY1EF104Z	J	AA	0.1 µF,25V
C712,713	VCEAZA1CW106M	J	AC	10 µF,16V,Electrolytic
C723~728	VCKYCY1HB331K	J	AA	330 pF,50V
C729~734	VCKYCY1EF104Z	J	AA	0.1 µF,25V
C735~746	VCFYHA1HA224J	J	AC	0.22 µF,50V,Thin Film
C747~757	VCKYCY1EB103K	J	AA	0.01 µF,25V
C758	VCKYCY1HB331K	J	AA	330 pF,50V
C759~764	VCKYCY1HB102K	J	AA	0.001 µF,50V
⚠ C901,902	RC-KZ008LAWZZ	J	AF	0.1 µF,250V
⚠ C903,904	RC-KZ007LAWZZ	J	AD	0.0022 µF,250V
⚠ C905	RC-EZ0081AWZZ	J	AX	220 µF,400V
⚠ C906	RC-KZ0011AWZZ	J	AE	680 pF,3.15 kV
⚠ C907	RC-KZ0009AWZZ	J	AF	0.01 µF,400V
⚠ C908	VCEA4U1EN476M	J	AC	47 µF,25V,Electrolytic
⚠ C909	VCKYPA1HB471K	J	AA	470 pF,50V
⚠ C910	VCKYCY1HB181K	J	AB	180 pF,50V
⚠ C911	VCEA4U1EN336M	J	AB	33 µF,25V,Electrolytic
⚠ C912~915	RC-KZ009LAWZZ	J	AE	0.01 µF,400V
⚠ C916,917	RC-KZ0089GEZZ	J	AC	0.001 µF,250V,Ceramic
⚠ C918	RC-KZ007LAWZZ	J	AD	0.0022 µF,250V

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⚠ C920	RC-KZ0010AWZZ	J	AF	0.0047 µF,400V
C921	RC-EZ0068AWZZ	J	AL	5600 µF,16V,Electrolytic
C924	VCKYCY1HB103K	J	AA	0.01 µF,50V
C925	RC-EZ0069AWZZ	J	AF	1000 µF,16V,Electrolytic
C926	VCEAEA1EW476M	J	AA	47 µF,25V,Electrolytic
C927	VCKYCY1HB102K	J	AA	0.001 µF,50V
⚠ C928	RC-KZ0010AWZZ	J	AF	0.0047 µF,400V
C929	RC-EZ0068AWZZ	J	AL	5600 µF,16V,Electrolytic
C931	RC-EZ0069AWZZ	J	AF	1000 µF,16V,Electrolytic
C932,933	RC-EZ0077AWZZ	J	AE	470 µF,25V,Electrolytic
C934,935	VCEAEA1EW476M	J	AA	47 µF,25V,Electrolytic
C936,937	VCEAEA1EW106M	J	AB	10 µF,25V,Electrolytic
C938,939	RC-EZ0071AWZZ	J	AF	220 µF,63V,Electrolytic
C940	VCEA2A1HW476M	J	AD	47 µF,50V,Electrolytic
C941	VCEAZV1VW477M	J	AD	470 µF,35V,Electrolytic
C942	VCKYCY1EB104K	J	AD	0.1 µF,25V
C943	VCEAEA1CW106M	J	AB	10 µF,16V,Electrolytic
C944	VCCCCY1HH221G	J	AB	220 pF (CH),50V
C945	VCKYCY1HB681K	J	AA	680 pF,50V
C947	VCKYCY1HB681K	J	AA	680 pF,50V
C949,950	VCKYCY1EB104K	J	AD	0.1 µF,25V
C951,952	VCFYDA1HA105J	J	AD	1 µF,50V
C953,954	RC-EZ0079AWZZ	J	AE	220 µF,25V,Electrolytic
C955,956	RC-EZ0078AWZZ	J	AD	100 µF,25V,Electrolytic
C959	VCKYCY1HB561K	J	AA	560 pF,50V
C960	VCKYCY1HB821K	J	AA	820 pF,50V
C961	VCEAEA1EW476M	J	AA	47 µF,25V,Electrolytic
C962	VCEA2A1HW476M	J	AD	47 µF,50V,Electrolytic
C963,964	VCQYKA1HM473K	J	AB	0.047 µF,50V,Mylar
C969	VCKYCY1EB104K	J	AD	0.1 µF,25V
C971	VCFYHA1HA104J	J	AB	0.1 µF,50V,Thin Film
C972	RC-EZ0078AWZZ	J	AD	100 µF,25V,Electrolytic
C973~976	RC-EZ0079AWZZ	J	AE	220 µF,25V,Electrolytic
C978	VCEAEA1HW225M	J	AB	2.2 µF,50V,Electrolytic
C979	VCKYCY1EB104K	J	AD	0.1 µF,25V
C980	VCEAEA1CW476M	J	AB	47 µF,16V,Electrolytic
C981	VCEAZA1CW227M	J	AC	220 µF,16V,Electrolytic
C3201	VCKYCY1CB104K	J	AB	0.1 µF,16V
C3203,3204	VCKYCY1CB104K	J	AB	0.1 µF,16V
C3205	VCEAPS476AF0J	J	AC	47 µF,6.3V,Electrolytic
C3207	VCKYCY1HB102K	J	AA	0.001 µF,50V
C3301~3305	VCKYTV1CF105Z	J	AB	1 µF,16V
C3306	VCKYCY1EB103K	J	AA	0.01 µF,25V
C3307	VCEAPS107AF0J	J	AC	100 µF,6.3V,Electrolytic
C3308	VCEAPS476AF0J	J	AC	47 µF,6.3V,Electrolytic
C3309	VCKYCY1EB103K	J	AA	0.01 µF,25V
C3310	VCEAPS476AF0J	J	AC	47 µF,6.3V,Electrolytic
C3311	VCEAPS225AF1H	J	AB	2.2 µF,50V,Electrolytic
C3312	VCKYCY1EB103K	J	AA	0.01 µF,25V
C3313,3314	VCKYCY1HB102K	J	AA	0.001 µF,50V
C3315	VCEAPS476AF0J	J	AC	47 µF,6.3V,Electrolytic
C3316	VCKYCY1HB102K	J	AA	0.001 µF,50V
C3317	VCKYCY1CB104K	J	AB	0.1 µF,16V
C3318	VCKYCY1HB102K	J	AA	0.001 µF,50V
C3319	VCEAPS476AF0J	J	AC	47 µF,6.3V,Electrolytic
C3320	VCKYCY1CB104K	J	AB	0.1 µF,16V
C3321	VCEAPS476AF0J	J	AC	47 µF,6.3V,Electrolytic
C3322	VCKYCY1EB103K	J	AA	0.01 µF,25V
C3323,3324	VCKYCY1CB104K	J	AB	0.1 µF,16V
C3325,3326	VCKYCY1HB472K	J	AA	0.0047 µF,50V
C3327,3328	VCKYCY1CB104K	J	AB	0.1 µF,16V
C3332,3333	VCKYCY1HB102K	J	AA	0.001 µF,50V
C3501	VCKYCY1CB104K	J	AB	0.1 µF,16V
C3502	VCEAPS107AF0J	J	AC	100 µF,6.3V,Electrolytic
C3503,3504	VCKYCY1CB104K	J	AB	0.1 µF,16V
C3506	VCKYCY1CB104K	J	AB	0.1 µF,16V
C3508	VCKYCY1CB104K	J	AB	0.1 µF,16V
C3510,3511	VCKYCY1CB104K	J	AB	0.1 µF,16V
C3512	VCKYCY0JB105K	J	AC	1 µF,6.3V
C3515~3517	VCKYCY1EB103K	J	AA	0.01 µF,25V
C3519~3521	VCKYCY1EB103K	J	AA	0.01 µF,25V
C3522	VCEAPS476AF0J	J	AC	47 µF,6.3V,Electrolytic
C3523	VCKYCY1EB103K	J	AA	0.01 µF,25V
C3524	VCKYCY1HB472K	J	AA	0.0047 µF,50V
C3525	VCKYCY1EB103K	J	AA	0.01 µF,25V
C3526	VCEAPS476AF0J	J	AC	47 µF,6.3V,Electrolytic
C3527,3528	VCKYCY1EB103K	J	AA	0.01 µF,25V
C3601	VCEAPS107AF0J	J	AC	100 µF,6.3V,Electrolytic
C3602	VCKYCY1CB104K	J	AB	0.1 µF,16V
C3603	VCEAPS107AF0J	J	AC	100 µF,6.3V,Electrolytic
C3604~3616	VCKYCY1CB104K	J	AB	0.1 µF,16V
C3617	VCEAPS107AF0J	J	AC	100 µF,6.3V,Electrolytic

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
C3618,3619	VCKYCY1CB104K	J	AB	0.1 µF,16V
C3620	VCEAPS107AF0J	J	AC	100 µF,6.3V,Electrolytic
C3621~3623	VCKYCY1CB104K	J	AB	0.1 µF,16V
C3624	VCEAPS476AF0J	J	AC	47 µF,6.3V,Electrolytic
C3625	VCKYCY1CB104K	J	AB	0.1 µF,16V
C3626,3627	VCCCCY1HH100D	J	AA	10 pF (CH),50V
C3628	VCEAPS476AF0J	J	AC	47 µF,6.3V,Electrolytic
C3629	VCEAPS107AF0J	J	AC	100 µF,6.3V,Electrolytic
C3630	VCKYCY1CB104K	J	AB	0.1 µF,16V
C3631	VCEAPS476AF0J	J	AC	47 µF,6.3V,Electrolytic
C3632~3635	VCKYCY1CB104K	J	AB	0.1 µF,16V
C3640,3641	VCKYCY1CB104K	J	AB	0.1 µF,16V
C3643,3644	VCKYCY1CB104K	J	AB	0.1 µF,16V
C3646	VCEAPS107AF0J	J	AC	100 µF,6.3V,Electrolytic
C3661,3662	VCKYCY1CB104K	J	AB	0.1 µF,16V
C3663,3664	VCEAPS476AF0J	J	AC	47 µF,6.3V,Electrolytic
C3665,3666	VCKYCY1CB104K	J	AB	0.1 µF,16V
C3667	VCEAPS476AF0J	J	AC	47 µF,6.3V,Electrolytic
C3668,3669	VCKYCY1EB103K	J	AA	0.01 µF,25V
C3670,3671	VCEAPS107AF0J	J	AC	100 µF,6.3V,Electrolytic
C3672	VCKYCY1EB103K	J	AA	0.01 µF,25V
C3673	VCEAPS476AF0J	J	AC	47 µF,6.3V,Electrolytic
C3674	VCKYCY1CB104K	J	AB	0.1 µF,16V
C3701	VCKYCY1EB103K	J	AA	0.01 µF,25V
C3702,3703	VCCCCY1HH820J	J	AA	82 pF (CH),50V
C3704	VCKYCY1EB103K	J	AA	0.01 µF,25V
C3705,3706	VCCCCY1HH221J	J	AA	220 pF (CH),50V
C3707	VCEAPS476AF0J	J	AC	47 µF,6.3V,Electrolytic
C3708	VCKYCY1CB104K	J	AB	0.1 µF,16V
C3709	VCCCCY1HH221J	J	AA	220 pF (CH),50V
C3710	VCEAPS106AF1C	J	AB	10 µF,16V,Electrolytic
C3711,3712	VCKYCY1CB104K	J	AB	0.1 µF,16V
C3713	VCKYCY1EB103K	J	AA	0.01 µF,25V
C3714	VCEAPS476AF0J	J	AC	47 µF,6.3V,Electrolytic
C3715	VCKYCY1CB104K	J	AB	0.1 µF,16V
C3716	VCCCCY1HH221J	J	AA	220 pF (CH),50V
C3717	VCKYCY1HB472K	J	AA	0.0047 µF,50V
C3718	VCKYCY1EB153K	J	AA	0.015 µF,25V
C3720	VCKYCY1HB682K	J	AA	0.0068 µF,50V
C3721,3722	VCKYCY1EB153K	J	AA	0.015 µF,25V
C3723	VCKYCY1CB104K	J	AB	0.1 µF,16V
C3725~3727	VCKYCY1CB104K	J	AB	0.1 µF,16V
C3728	VCCCCY1HH221J	J	AA	220 pF (CH),50V
C3729	VCKYCY1HB472K	J	AA	0.0047 µF,50V
C3730	VCKYCY1CB104K	J	AB	0.1 µF,16V
C3731	VCKYCY1HB102K	J	AA	0.001 µF,50V
C3732,3733	VCKYCY1CB104K	J	AB	0.1 µF,16V
C3734	VCKYCY1HB561K	J	AA	560 pF,50V
C3735	VCKYCY1EB103K	J	AA	0.01 µF,25V
C3741	VCKYCY1EB103K	J	AA	0.01 µF,25V
C3742	VCKYCY1CB104K	J	AB	0.1 µF,16V
C3744	VCKYCY1CB104K	J	AB	0.1 µF,16V
C3746,3747	VCKYCY1CB104K	J	AB	0.1 µF,16V
C3748,3749	VCKYCY1EB103K	J	AA	0.01 µF,25V
C3750	VCKYCY1CB104K	J	AB	0.1 µF,16V
C3751	VCKYCY1HB102K	J	AA	0.001 µF,50V
C3752,3753	VCKYCY1CB104K	J	AB	0.1 µF,16V
C3756~3759	VCKYCY1CB104K	J	AB	0.1 µF,16V
C3802	VCKYCY1EB103K	J	AA	0.01 µF,25V
C3803	VCEAPS106AF1C	J	AB	10 µF,16V,Electrolytic
C3804	VCCCCY1HH101J	J	AA	100 pF (CH),50V
C3805	VCCCCY1HH221J	J	AA	220 pF (CH),50V
C3806	VCKYCY1CB104K	J	AB	0.1 µF,16V
C5001	VCEAPS107AF1A	J	AD	100 µF,10V,Electrolytic
C5002	VCKYCY1EB103K	J	AA	0.01 µF,25V
C5003~5005	VCCCCY1HH270J	J	AA	27 pF (CH),50V
C5006~5008	VCCCCY1HH680J	J	AA	68 pF (CH),50V
C5009~5011	VCCCCY1HH5R0C	J	AA	5 pF (CH),50V
C5012~5014	VCCCCY1HH390J	J	AA	39 pF (CH),50V
C5018~5020	VCCCCY1HH470J	J	AA	47 pF (CH),50V
C5021~5023	VCEAPS476AF0J	J	AC	47 µF,6.3V,Electrolytic
C5028	VCEAPS107AF1A	J	AD	100 µF,10V,Electrolytic
C5029	VCKYCY1EB103K	J	AA	0.01 µF,25V
C5030	VCCCCY1HH270J	J	AA	27 pF (CH),50V
C5031	VCCCCY1HH680J	J	AA	68 pF (CH),50V
C5032	VCCCCY1HH390J	J	AA	39 pF (CH),50V
C5033	VCCCCY1HH5R0C	J	AA	5 pF (CH),50V
C5034	VCCCCY1HH470J	J	AA	47 pF (CH),50V
C5035	VCEAPS476AF0J	J	AC	47 µF,6.3V,Electrolytic
C5036	VCEAEA1AW107M	J	AB	100 µF,10V,Electrolytic
CA100,101	VCCCCY1HH180J	J	AA	18 pF (CH),50V
CA102~104	VCKYCY1EF104Z	J	AA	0.1 µF,25V

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NO.	PART CODE	★	PRICE RANK	DESCRIPTION
CA105,106	RC-EZ0007AWZZ	J	AF	10 µF,10V,Electrolytic
CA107	VCKYCY1EF104Z	J	AA	0.1 µF,25V
CA108,109	RC-EZ0051AWZZ	J	AC	10 µF,10V,Electrolytic
CA110	VCKYCY1EF104Z	J	AA	0.1 µF,25V
CA142,143	VCFYDA1HA155J	J	AG	1.5 µF,50V,Thin Film
CA150,151	VCFYDA1HA155J	J	AG	1.5 µF,50V,Thin Film
CA152	VCCCCY1HH120J	J	AA	12 pF (CH),50V
CA153,154	VCCCCY1HH180J	J	AA	18 pF (CH),50V
CA155	VCCCCY1HH120J	J	AA	12 pF (CH),50V
CA159,160	VCEAZA1EW107M	J	AB	100 µF,25V,Electrolytic
CA163	VCEAZA1CW107M	J	AC	100 µF,16V,Electrolytic
CA164,165	RC-EZD107AF1A	J	AB	100 µF,10V,Electrolytic
CA177~180	VCKYCY1EB103K	J	AA	0.01 µF,25V
CA181	VCCCCY1HH101J	J	AA	100 pF (CH),50V
CA182	VCKYCY1EF104Z	J	AA	0.1 µF,25V
CA184	RC-EZD476AF1A	J	AC	47 µF,10V,Electrolytic
CA185	VCKYCY1HB102K	J	AA	0.001 µF,50V
CA186	RC-EZD476AF1A	J	AC	47 µF,10V,Electrolytic
CA187~189	VCKYCY1HB102K	J	AA	0.001 µF,50V
CA194	RC-EZD476AF1C	J	AC	47 µF,16V,Electrolytic
CA196,197	RC-EZD476AF1E	J	AC	47 µF,25V,Electrolytic
CA211	VCKYCY1EF104Z	J	AA	0.1 µF,25V
CA212	RC-EZD107AF1C	J	AC	100 µF,16V,Electrolytic
CA250	RC-KZ0007AWZZ	J	AG	1 µF,25V,Electrolytic
CA251,252	VCKYCY1HB102K	J	AA	0.001 µF,50V
CA253	RC-KZ0007AWZZ	J	AG	1 µF,50V
CA254	VCKYCY1HB102K	J	AA	0.001 µF,50V
CA255	RC-KZ0007AWZZ	J	AG	1 µF,50V
CA256	VCKYCY1HB102K	J	AA	0.001 µF,50V
CA257	RC-KZ0007AWZZ	J	AG	1 µF,50V
CA258	VCKYTV1HB104K	J	AB	0.1 µF,50V
CA259	RC-EZD107AF1C	J	AC	100 µF,16V,Electrolytic
CA260	VCKYCY1EF104Z	J	AA	0.1 µF,25V
CA261	RC-EZD107AF1A	J	AB	100 µF,10V,Electrolytic
CA262	VCKYCY1EF104Z	J	AA	0.1 µF,25V
CA263	VCKYTV1HB104K	J	AB	0.1 µF,50V
CA264,265	VCKYCY1HB102K	J	AA	0.001 µF,50V
CA266,267	RC-KZ0007AWZZ	J	AG	1 µF,50V
CA268	VCKYCY1HB102K	J	AA	0.001 µF,50V
CA269	RC-KZ0007AWZZ	J	AG	1 µF,50V
CA270	VCKYCY1HB102K	J	AA	0.001 µF,50V
CA271	RC-KZ0007AWZZ	J	AG	1 µF,50V
CA272	VCKYTV1HB104K	J	AB	0.1 µF,50V
CA273	RC-EZD107AF1C	J	AC	100 µF,16V,Electrolytic
CA274	VCKYCY1EF104Z	J	AA	0.1 µF,25V
CA275	RC-EZD107AF1A	J	AB	100 µF,10V,Electrolytic
CA276	VCKYCY1EF104Z	J	AA	0.1 µF,25V
CA277	VCKYTV1HB104K	J	AB	0.1 µF,50V
CA278,279	VCKYCY1EF104Z	J	AA	0.1 µF,25V
CA280,281	VCKYTV1HB104K	J	AB	0.1 µF,50V
CA282~284	VCKYCY1EF104Z	J	AA	0.1 µF,25V
CA285	VCKYCY1EB103K	J	AA	0.01 µF,25V
CA286~290	VCKYCY1EF104Z	J	AA	0.1 µF,25V
CA294	VCKYCY1EB103K	J	AA	0.01 µF,25V
CE01	VCEAEA1HW105M	J	AB	1 µF,50V,Electrolytic
CE02	VCKYCY1CF104Z	J	AB	0.1 µF,16V
CE03	VCCCCY1HH101J	J	AA	100 pF (CH),50V
CE04	VCEAEA1HW105M	J	AB	1 µF,50V,Electrolytic
CE06	VCKYCY1CF104Z	J	AB	0.1 µF,16V
CE07	VCEAEA1HW105M	J	AB	1 µF,50V,Electrolytic
CE08	VCKYCY1HF104Z	J	AB	0.1 µF,50V
CE09	VCCCCY1HH151J	J	AA	150 pF (CH),50V
CE10	VCKYCY1CF104Z	J	AB	0.1 µF,16V
CE11	VCEAEA1CW106M	J	AB	10 µF,16V,Electrolytic
CE12	VCEAEA1AW107M	J	AB	100 µF,10V,Electrolytic
CE13	VCKYCY1AF105Z	J	AB	1 µF,10V
CE14	VCKYCY1CF105Z	J	AB	1 µF,16V
CE15	VCKYCY1CF104Z	J	AB	0.1 µF,16V
CE16,17	VCEAEA1CW476M	J	AB	47 µF,16V,Electrolytic
CE18,19	VCEAEA1AW107M	J	AB	100 µF,10V,Electrolytic
CE20,21	VCEAEA1CW476M	J	AB	47 µF,16V,Electrolytic
CE22	VCEAEA1VW226M	J	AB	22 µF,35V,Electrolytic
CE23	VCKYCY1CF105Z	J	AB	1 µF,16V
CE24	VCKYCY1CF104Z	J	AB	0.1 µF,16V
CE25	VCKYCY1AF105Z	J	AB	1 µF,10V
CE26,27	RC-EZ0080AWZZ	J	AE	220 µF,50V,Electrolytic
CE28~31	VCKYCY1CF104Z	J	AB	0.1 µF,16V
CE32~35	VCCCCY1HH101J	J	AA	100 pF (CH),50V
CF51,52	VCCCCY1HH101J	J	AA	100 pF (CH),50V
CT01	VCEAPS476AF1A	J	AD	47 µF,10V,Electrolytic
CT02	VCKYCY1EF223Z	J	AB	0.022 µF,25V
CT03,04	VCCCCY1HH220J	J	AA	22 pF (CH),50V

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CT05	VCEAPS106AF1C	J	AB	10 µF,16V,Electrolytic
CT06~08	VCKYCY1EF223Z	J	AB	0.022 µF,25V
CT09	VCEAPS476AF1A	J	AD	47 µF,10V,Electrolytic
CT10	VCKYCY1EF223Z	J	AB	0.022 µF,25V
CT11	VCKYCY1HB561K	J	AA	560 pF,50V
CT12	VCEAPS106AF1C	J	AB	10 µF,16V,Electrolytic
CT13	VCKYCY1EF223Z	J	AB	0.022 µF,25V
CV01,02	VCCCCY1HH470J	J	AA	47 pF (CH),50V
CV03	VCCCCY1HH101H	J		100 pF (CH),50V
CV04~07	VCKYCY1HB103K	J	AA	0.01 µF,50V
CV09,10	VCKYCY1HB102K	J	AA	0.001 µF,50V
CV15~20	VCEAPS105AF1H	J	AB	1 µF,50V,Electrolytic
CV21~26	VCEAPS225AF1H	J	AB	2.2 µF,50V,Electrolytic
CV27,28	VCEAPS105AF1H	J	AB	1 µF,50V,Electrolytic
CV29	VCEAPS226AF1C	J	AC	22 µF,16V,Electrolytic
CV30~33	VCEAPS225AF1H	J	AB	2.2 µF,50V,Electrolytic
CV34	VCEAPS476AF1C	J	AC	47 µF,16V,Electrolytic
CV35	VCKYCY1HF103Z	J	AB	0.01 µF,50V
CV36,37	VCEAPS106AF1C	J	AB	10 µF,16V,Electrolytic
CV38	VCKYCY1HF103Z	J	AB	0.01 µF,50V
CV39~42	VCEAPS106AF1C	J	AB	10 µF,16V,Electrolytic
CV43	VCEAPS225AF1H	J	AB	2.2 µF,50V,Electrolytic
CV45	VCEAPS106AF1C	J	AB	10 µF,16V,Electrolytic
CV46	VCKYCY1HF103Z	J	AB	0.01 µF,50V
CV47	VCEAPS225AF1H	J	AB	2.2 µF,50V,Electrolytic
CV48	VCKYCY1HB103K	J	AA	0.01 µF,50V
CV49,50	VCCCCY1HH101J	J	AA	100 pF (CH),50V
CV57,58	VCEAPS105AF1H	J	AB	1 µF,50V,Electrolytic
CV59,60	VCCCCY1HH470J	J	AA	47 pF (CH),50V
CV61,62	VCEAPS105AF1H	J	AB	1 µF,50V,Electrolytic
CV69,70	VCEAPS107AF1C	J	AC	100 µF,16V,Electrolytic
CV72	VCKYCY1HB102K	J	AA	0.001 µF,50V
CV73,74	VCKYCY1EB104K	J	AD	0.1 µF,25V
CV75,76	VCCCCY1HH470J	J	AA	47 pF (CH),50V
CV77,78	VCKYCY0JB105K	J	AC	1 µF,6.3V
CV79	VCKYCY1HF103Z	J	AB	0.01 µF,50V
CV80	VCCCCY1HH101J	J	AA	100 pF (CH),50V
CV81	VCEAPS105AF1H	J	AB	1 µF,50V,Electrolytic
CV82,83	VCKYCY1EB104K	J	AD	0.1 µF,25V
CV84~87	VCEAPS476AF0J	J	AC	47 µF,6.3V,Electrolytic
CV88~91	VCKYCY1CF224Z	J	AB	0.22 µF,16V
CV96	VCEAPS107AF1C	J	AC	100 µF,16V,Electrolytic
CV97	VCEAZA0JW477M	J		470 µF,6.3V,Electrolytic
CV99	VCKYCY1HF103Z	J	AB	0.01 µF,50V
CX01~06	VCKYCY1HB102K	J	AA	0.001 µF,50V
CX07	VHEKDZ100EV-1	J	AC	Zener,10V,KDZ10EV
CX12	VHEKDZ100EV-1	J	AC	Zener,10V,KDZ10EV
CX14~16	VHEKDZ100EV-1	J	AC	Zener,10V,KDZ10EV

RESISTORS

	VRS-CY1JB000J	J	AA	0 ohm,Jumper,0.8×1.55mm,Green
	VRS-TQ2BB000J	J	AA	0 ohm,Jumper,1.55×3.1mm,Green
	VRS-TV2AB000J	J	AA	0 ohm,Jumper,1.25×2mm,Green
R104,105	VRS-CY1JB473J	J	AA	47 kohms,1/16W
R106,107	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R110	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R111	VRS-CY1JB4R7J	J	AA	4.7 ohms,1/16W
R112	VRS-CY1JB183J	J	AA	18 kohms,1/16W
R114	VRS-CY1JB472J	J	AA	4.7 kohms,1/16W
R115~122	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R123	VRS-CY1JB4R7J	J	AA	4.7 ohms,1/16W
R125~127	VRS-CY1JB472J	J	AA	4.7 kohms,1/16W
R128	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R129,130	VRS-CY1JB101J	J	AA	100 ohm,1/16W
R131,132	VRS-CY1JB331J	J	AA	330 ohms,1/16W
R133,134	VRS-CY1JB472J	J	AA	4.7 kohms,1/16W
R135	VRS-CY1JB101J	J	AA	100 ohm,1/16W
R136	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R137	VRS-CY1JB331J	J	AA	330 ohms,1/16W
R138	VRS-CY1JB333J	J	AA	33 kohms,1/16W
R139	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R141	VRS-CY1JB105J	J	AA	1 Mohm,1/16W
R142~144	VRS-CY1JB104J	J	AA	100 kohm,1/16W
R147,148	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R150,151	VRS-CY1JB123J	J	AA	12 kohms,1/16W
R152~155	VRS-CY1JB104J	J	AA	100 kohm,1/16W
R156	VRS-CY1JB272J	J	AA	2.7 kohms,1/16W
R157	VRS-CY1JB222J	J	AA	2.2 kohms,1/16W
R158,159	VRS-CY1JB273J	J	AA	27 kohms,1/16W
R160~163	VRS-CY1JB223J	J	AA	22 kohms,1/16W

NO.	PART CODE	★	PRICE RANK	DESCRIPTION
R164,165	VRS-CY1JB273J	J	AA	27 kohms,1/16W
R166,167	VRS-CY1JB561J	J	AA	560 ohms,1/16W
R168,169	VRS-CY1JB104J	J	AA	100 kohm,1/16W
R170,171	VRS-CY1JB472J	J	AA	4.7 kohms,1/16W
R172,173	VRS-CY1JB221J	J	AA	220 ohms,1/16W
R174~177	VRS-CY1JB273J	J	AA	27 kohms,1/16W
R178,179	VRS-CY1JB221J	J	AA	220 ohms,1/16W
R180	VRS-CY1JB273J	J	AA	27 kohms,1/16W
R181,182	VRS-CY1JB221J	J	AA	220 ohms,1/16W
R183	VRS-CY1JB682J	J	AA	6.8 kohms,1/16W
R184	VRS-CY1JB273J	J	AA	27 kohms,1/16W
R185	VRS-CY1JB183J	J	AA	18 kohms,1/16W
R186	VRS-CY1JB104J	J	AA	100 kohm,1/16W
R187	VRS-CY1JB101J	J	AA	100 ohm,1/16W
R188	VRS-CY1JB682J	J	AA	6.8 kohms,1/16W
R189	VRS-CY1JB104J	J	AA	100 kohm,1/16W
R190,191	VRS-CY1JB102J	J	AA	1 kohm,1/16W
R194	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R195~197	VRS-CY1JB472J	J	AA	4.7 kohms,1/16W
R198	VRS-CY1JB151J	J	AA	150 ohms,1/16W
R199	VRS-CY1JB471J	J	AA	470 ohms,1/16W
R200	VRS-CY1JB102J	J	AA	1 kohm,1/16W
R202	VRS-CY1JB273J	J	AA	27 kohms,1/16W
R203	VRS-TQ2BB152J	J	AA	1.5 kohms,1/8W
R204	VRS-CY1JB122J	J	AA	1.2 kohms,1/16W
R205	VRS-TQ2BB152J	J	AA	1.5 kohms,1/8W
R206	VRS-CY1JB104J	J	AA	100 kohm,1/16W
R208,209	VRS-CY1JB102J	J	AA	1 kohm,1/16W
R210	VRS-CY1JB123J	J	AA	12 kohms,1/16W
R211,212	VRS-CY1JB221J	J	AA	220 ohms,1/16W
R213	VRS-CY1JB101J	J	AA	100 ohm,1/16W
R301~304	VRS-CY1JB102J	J	AA	1 kohm,1/16W
R305	VRS-CY1JB221J	J	AA	220 ohms,1/16W
R306	VRS-CY1JB102J	J	AA	1 kohm,1/16W
R307	VRS-CY1JB221J	J	AA	220 ohms,1/16W
R309,310	VRS-CY1JB102J	J	AA	1 kohm,1/16W
R311	VRS-CY1JB221J	J	AA	220 ohms,1/16W
R312	VRS-CY1JB102J	J	AA	1 kohm,1/16W
R313	VRS-CY1JB821J	J	AA	820 ohms,1/16W
R315	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R316~327	VRS-CY1JB102J	J	AA	1 kohm,1/16W
R328,329	VRS-CY1JB221J	J	AA	220 ohms,1/16W
R330~346	VRS-CY1JB102J	J	AA	1 kohm,1/16W
R349~357	VRS-CY1JB102J	J	AA	1 kohm,1/16W
R359~390	VRS-CY1JB102J	J	AA	1 kohm,1/16W
R395	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R397~403	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R405	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R410~413	VRS-CY1JB473J	J	AA	47 kohms,1/16W
R414	VRS-CY1JB224J	J	AA	220 kohms,1/16W
R415,416	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R417	VRS-CY1JB1R0J	J	AA	1 ohm,1/16W
R418	VRS-CY1JB472J	J	AA	4.7 kohms,1/16W
R419	VRS-CY1JB152J	J	AA	1.5 kohms,1/16W
R421	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R424,425	VRS-CY1JB473J	J	AA	47 kohms,1/16W
R426,427	VRS-CY1JB151J	J	AA	150 ohms,1/16W
R428	VRS-CY1JB104J	J	AA	100 kohm,1/16W
R429	VRS-CY1JB681J	J	AA	680 ohms,1/16W
R430,431	VRS-CY1JB102J	J	AA	1 kohm,1/16W
R435	VRS-CY1JB222J	J	AA	2.2 kohms,1/16W
R436	VRS-CY1JB101J	J	AA	100 ohm,1/16W
R438,439	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R440	VRS-CY1JB473J	J	AA	47 kohms,1/16W
R448	VRS-CY1JB223J	J	AA	22 kohms,1/16W
R449	VRS-CY1JB561J	J	AA	560 ohms,1/16W
R450	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R453	VRS-CY1JB102J	J	AA	1 kohm,1/16W
R454	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R501,502	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R503	VRS-CY1JB823J	J	AA	82 kohms,1/16W
R504	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R506	VRS-CY1JB331J	J	AA	330 ohms,1/16W
R507,508	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R509	VRS-CY1JB474J	J	AA	470 kohms,1/16W
R510	VRS-CY1JB331J	J	AA	330 ohms,1/16W
R512	VRS-CY1JB474J	J	AA	470 kohms,1/16W
R513,514	VRS-CY1JB102J	J	AA	1 kohm,1/16W
R515	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R516	VRS-CY1JB152J	J	AA	1.5 kohms,1/16W
R517	VRS-CY1JB474J	J	AA	470 kohms,1/16W
R520	VRS-CY1JB153J	J	AA	15 kohms,1/16W

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
R521	VRS-CY1JB561J	J	AA	560 ohms,1/16W
R522	VRS-CY1JB474J	J	AA	470 kohms,1/16W
R523	VRS-TW2EE221J	J	AA	220 ohms,1/4W
R526~529	VRS-CY1JB104J	J	AA	100 kohm,1/16W
R530,531	VRS-CY1JB183J	J	AA	18 kohms,1/16W
R532,533	VRS-CY1JB223J	J	AA	22 kohms,1/16W
R534,535	VRS-CY1JB102J	J	AA	1 kohm,1/16W
R536,537	VRS-CY1JB104J	J	AA	100 kohm,1/16W
R538,539	VRS-CY1JB332J	J	AA	3.3 kohms,1/16W
R540~545	VRS-CY1JB104J	J	AA	100 kohm,1/16W
R546,547	VRS-CY1JB183J	J	AA	18 kohms,1/16W
R548,549	VRS-CY1JB223J	J	AA	22 kohms,1/16W
R550,551	VRS-CY1JB102J	J	AA	1 kohm,1/16W
R552,553	VRS-CY1JB104J	J	AA	100 kohm,1/16W
R554,555	VRS-CY1JB332J	J	AA	3.3 kohms,1/16W
R556,557	VRS-CY1JB104J	J	AA	100 kohm,1/16W
R558	VRS-CY1JB332J	J	AA	3.3 kohms,1/16W
R559	VRS-CY1JB104J	J	AA	100 kohm,1/16W
R560	VRS-CY1JB562J	J	AA	5.6 kohms,1/16W
R561	VRS-CY1JB104J	J	AA	100 kohm,1/16W
R562	VRS-CY1JB223J	J	AA	22 kohms,1/16W
R563	VRS-CY1JB183J	J	AA	18 kohms,1/16W
R564	VRS-CY1JB274J	J	AA	270 kohms,1/16W
R565	VRS-CY1JB223J	J	AA	22 kohms,1/16W
R566	VRS-CY1JB182J	J	AA	1.8 kohms,1/16W
R567	VRS-CY1JB102J	J	AA	1 kohm,1/16W
R568	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R569	VRS-CY1JB104J	J	AA	100 kohm,1/16W
R570	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R571	VRS-CY1JB332J	J	AA	3.3 kohms,1/16W
R572	VRS-CY1JB102J	J	AA	1 kohm,1/16W
R573,574	VRS-CY1JB104J	J	AA	100 kohm,1/16W
R575	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R576	VRS-CY1JB332J	J	AA	3.3 kohms,1/16W
R577	VRS-CY1JB223J	J	AA	22 kohms,1/16W
R578,579	VRS-CY1JB104J	J	AA	100 kohm,1/16W
R580	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R581	VRS-TW2EE750J	J	AC	75 ohms,1/4W
R582	VRS-CY1JB223J	J	AA	22 kohms,1/16W
R583	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R584,585	VRS-CY1JB104J	J	AA	100 kohm,1/16W
R586	VRS-TW2EE750J	J	AC	75 ohms,1/4W
R587,588	VRS-CY1JB222J	J	AA	2.2 kohms,1/16W
R591	VRS-CY1JB222J	J	AA	2.2 kohms,1/16W
R592	VRS-CY1JB104J	J	AA	100 kohm,1/16W
R594	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R595	VRS-CY1JB102J	J	AA	1 kohm,1/16W
R596	VRS-CY1JB221J	J	AA	220 ohms,1/16W
R597	VRS-CY1JB104J	J	AA	100 kohm,1/16W
R598	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R599	VRS-CY1JB102J	J	AA	1 kohm,1/16W
R600	VRS-CY1JB182J	J	AA	1.8 kohms,1/16W
R601,602	VRS-CY1JB473J	J	AA	47 kohms,1/16W
R603	VRS-CY1JB182J	J	AA	1.8 kohms,1/16W
R604,605	VRS-CY1JB473J	J	AA	47 kohms,1/16W
R606	VRS-CY1JB474J	J	AA	470 kohms,1/16W
R607,608	VRS-CY1JB102J	J	AA	1 kohm,1/16W
R612	VRS-CY1JB102J	J	AA	1 kohm,1/16W
R613	VRS-CY1JB223J	J	AA	22 kohms,1/16W
R614	VRS-CY1JB104J	J	AA	100 kohm,1/16W
R615	VRS-CY1JB273J	J	AA	27 kohms,1/16W
R618~622	VRS-CY1JB332J	J	AA	3.3 kohms,1/16W
R623,624	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R628	VRS-CY1JB472J	J	AA	4.7 kohms,1/16W
R629	VRS-CY1JB332J	J	AA	3.3 kohms,1/16W
R630	VRS-CY1JB222J	J	AA	2.2 kohms,1/16W
R631	VRS-CY1JB102J	J	AA	1 kohm,1/16W
R632	VRS-CY1JB153J	J	AA	15 kohms,1/16W
R633,634	VRS-CY1JB104J	J	AA	100 kohm,1/16W
R639,640	VRS-CY1JB102J	J	AA	1 kohm,1/16W
R641,642	VRS-CY1JB104J	J	AA	100 kohm,1/16W
R643	VRS-CY1JB182J	J	AA	1.8 kohms,1/16W
R644	VRS-CY1JB221J	J	AA	220 ohms,1/16W
R645,646	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R647	VRS-CY1JB221J	J	AA	220 ohms,1/16W
R648	VRS-CY1JB222J	J	AA	2.2 kohms,1/16W
R649	VRS-CY1JB182J	J	AA	1.8 kohms,1/16W
R650	VRS-CY1JB152J	J	AA	1.5 kohms,1/16W
R651	VRS-CY1JB105J	J	AA	1 Mohm,1/16W
R652,653	VRS-TW2EE181J	J	AC	180 ohms,1/4W
R656	VRS-CY1JB102J	J	AA	1 kohm,1/16W
R657,658	VRS-CY1JB101J	J	AA	100 ohm,1/16W

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NO.	PART CODE	★	PRICE RANK	DESCRIPTION
R659,660	VRS-TW2EE750J	J	AC	75 ohms,1/4W
R661	VRS-CY1JB104J	J	AA	100 kohm,1/16W
R674	VRS-CY1JB152J	J	AA	1.5 kohms,1/16W
R676	VRD-RT2HD220J	J	AA	22 ohms,1/2W
R701	VRS-CY1JB472J	J	AA	4.7 kohms,1/16W
R702	VRS-CY1JB104J	J	AA	100 kohm,1/16W
R703	VRS-CY1JB472J	J	AA	4.7 kohms,1/16W
R704	VRS-CY1JB104J	J	AA	100 kohm,1/16W
R705	VRS-CY1JB472J	J	AA	4.7 kohms,1/16W
R706	VRS-CY1JB104J	J	AA	100 kohm,1/16W
R707	VRS-CY1JB472J	J	AA	4.7 kohms,1/16W
R708	VRS-CY1JB104J	J	AA	100 kohm,1/16W
R709	VRS-CY1JB472J	J	AA	4.7 kohms,1/16W
R710	VRS-CY1JB104J	J	AA	100 kohm,1/16W
R711,712	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R713,714	VRS-CY1JB472J	J	AA	4.7 kohms,1/16W
R715,716	VRS-CY1JB393J	J	AA	39 kohms,1/16W
R717,718	VRS-CY1JB822J	J	AA	8.2 kohms,1/16W
R719~722	VRS-CY1JB223J	J	AA	22 kohms,1/16W
R723,724	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R725,726	VRS-CY1JB472J	J	AA	4.7 kohms,1/16W
R727,728	VRS-CY1JB393J	J	AA	39 kohms,1/16W
R729,730	VRS-CY1JB822J	J	AA	8.2 kohms,1/16W
R731~734	VRS-CY1JB223J	J	AA	22 kohms,1/16W
R735	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R736	VRS-CY1JB124J	J	AA	120 kohms,1/16W
R737,738	VRS-CY1JB472J	J	AA	4.7 kohms,1/16W
R739	VRS-CY1JB393J	J	AA	39 kohms,1/16W
R740	VRS-CY1JB822J	J	AA	8.2 kohms,1/16W
R741,742	VRS-CY1JB223J	J	AA	22 kohms,1/16W
R743~748	RR-FZ0005AWZZ	J	AF	0.11 ohms,
R749,750	VRS-CY1JB271J	J	AA	270 ohms,1/16W
R751	VRS-CY1JB273J	J	AA	27 kohms,1/16W
R752,753	VRS-CY1JB271J	J	AA	270 ohms,1/16W
R754	VRS-CY1JB273J	J	AA	27 kohms,1/16W
R755,756	VRS-CY1JB271J	J	AA	270 ohms,1/16W
R757	VRS-CY1JB273J	J	AA	27 kohms,1/16W
R758,759	VRS-CY1JB271J	J	AA	270 ohms,1/16W
R760	VRS-CY1JB273J	J	AA	27 kohms,1/16W
R761,762	VRS-CY1JB271J	J	AA	270 ohms,1/16W
R763,764	VRS-CY1JB273J	J	AA	27 kohms,1/16W
R765	VRS-CY1JB222J	J	AA	2.2 kohms,1/16W
R766	VRS-CY1JB223J	J	AA	22 kohms,1/16W
R767,768	VRS-CY1JB271J	J	AA	270 ohms,1/16W
R769,770	VRS-CY1JB273J	J	AA	27 kohms,1/16W
R771	VRS-CY1JB222J	J	AA	2.2 kohms,1/16W
R772	VRS-CY1JB223J	J	AA	22 kohms,1/16W
R773~778	VRS-CY1JB273J	J	AA	27 kohms,1/16W
R779,780	VRS-CY1JB105J	J	AA	1 Mohm,1/16W
R781~784	VRS-CY1JB223J	J	AA	22 kohms,1/16W
R785,786	VRS-CY1JB104J	J	AA	100 kohm,1/16W
R787	VRS-CY1JB225J	J	AA	0.2 Mohms,1/16W
R788	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R789	VRS-CY1JB104J	J	AA	100 kohm,1/16W
R790	VRS-CY1JB225J	J	AA	0.2 Mohms,1/16W
R792~809	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R810	VRS-TV2AB390J	J	AA	39 ohms,1/10W
R811~814	VRS-TQ2BB270J	J	AA	27 ohms,1/8W
R815~820	VRS-VV3AA470J	J	AB	47 ohms,1W
R831~836	VRD-RT2HD102J	J		1 kohm,1/2W
⚠ R901	VRS-VV3DA683J	J	AB	68 kohms,2W
⚠ R902	VRD-RT2HD224J	J	AB	220 kohms,1/2W
⚠ R903,904	VRS-VV3DA470J	J	AC	47 ohms,2W
⚠ R905	VRS-TW2EE472J	J	AC	4.7 kohms,1/4W
⚠ R906	VRS-TW2EE101J	J	AC	100 ohms,1/4W
⚠ R907	VRS-TQ2BB393J	J	AA	39 kohms,1/8W
⚠ R908	VRD-ST2CD104J	J	AA	100 kohm,1/6W
⚠ R909	VRS-TW2EE103J	J	AC	10 kohms,1/4W
⚠ R910	VRD-ST2EE100J	J	AA	10 ohm,1/4W
⚠ R911	VRD-ST2EE332J	J	AA	3.3 kohms,1/4W
⚠ R912	VRS-TW2EE681J	J	AC	680 ohms,1/4W
⚠ R913	RR-FZ0003AWZZ	J	AG	0.15 ohms,3W
⚠ R914	VRS-TW2EE222J	J	AC	2.2 kohms,1/4W
⚠ R915	VRS-TQ2BB224J	J	AA	220 kohms,1/8W
⚠ R919	VRS-TW2EE105J	J	AC	1 Mohm,1/4W
R921	VRD-ST2CD152J	J	AA	1.5 kohms,1/6W
R922	VRD-ST2EE221J	J	AA	220 ohms,1/4W
R923	VRS-TW2EE182J	J	AC	1.8 kohms,1/4W
R924	VRS-TQ2BB560J	J	AA	56 ohms,1/8W
R925	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R926	VRS-TQ2BB103J	J	AA	10 kohm,1/8W
R927,928	VRS-TQ2BB181J	J	AA	180 ohms,1/8W

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
R932	VRS-TQ2BB222J	J	AA	2.2 kohms,1/8W
R933	VRS-TW2EE101J	J	AC	100 ohms,1/4W
R934	VRS-CY1JB333D	J	AA	33 kohms,1/16W
R935	VRS-CY1JB122D	J	AA	1.2 kohms,1/16W
R936	VRD-ST2EE221J	J	AA	220 ohms,1/4W
R937	VRS-CY1JB563J	J	AA	56 kohms,1/16W
R938	VRS-CY1JB393J	J	AA	39 kohms,1/16W
R939,940	VRS-CY1JB272J	J	AA	2.7 kohms,1/16W
R941~944	VRS-CY1JB272D	J	AA	2.7 kohms,1/16W
R945	VRS-CY1JB122D	J	AA	1.2 kohms,1/16W
R946	VRS-CY1JB123D	J	AA	12 kohms,1/16W
R947	VRS-CY1JB103D	J	AA	10 kohm,1/16W
R948	VRS-CY1JB182D	J	AB	1.8 kohms,1/16W
R949	VRS-CY1JB103D	J	AA	10 kohm,1/16W
R950	VRS-CY1JB153D	J	AA	15 kohms,1/16W
R951	VRS-CY1JB103D	J	AA	10 kohm,1/16W
R952	VRS-CY1JB153D	J	AA	15 kohms,1/16W
R953,954	VRD-ST2CD271J	J	AA	270 ohms,1/6W
R957	VRD-ST2CD101J	J	AA	100 ohm,1/6W
R958	VRS-TQ2BB680J	J	AA	68 ohms,1/8W
R959	VRS-CY1JB823J	J	AA	82 kohms,1/16W
R960	VRS-CY1JB273J	J	AA	27 kohms,1/16W
R961	VRS-CY1JB153J	J	AA	15 kohms,1/16W
R962	VRS-CY1JB183J	J	AA	18 kohms,1/16W
R964	VRS-CY1JB102J	J	AA	1 kohm,1/16W
R967	VRD-ST2CD221J	J	AA	220 ohms,1/6W
R968	VRS-CY1JB333J	J	AA	33 kohms,1/16W
R969	VRD-ST2CD152J	J	AA	1.5 kohms,1/6W
R971	VRS-TQ2BB102J	J	AA	1 kohm,1/8W
R972	VRD-RT2HD272J	J	AA	2.7 kohms,1/2W
R973	VRS-CY1JB102J	J	AA	1 kohm,1/16W
R974	VRD-CY1JB821J	J		820 ohms,1/16W
R978,979	VRS-TQ2BB472J	J	AA	4.7 kohms,1/8W
R980	VRD-ST2EE820J	J	AA	82 ohms,1/4W
R981	VRS-CY1JB273J	J	AA	27 kohms,1/16W
R984,985	VRS-TQ2BB221J	J	AA	220 ohms,1/8W
R986	VRS-CY1JB472J	J	AA	4.7 kohms,1/16W
R987	VRS-CY1JB224J	J	AA	220 kohms,1/16W
R988	VRS-TW2EE1R2J	J	AC	1.2 ohms,1/4W
R989	VRS-TW2EE1R5J	J	AC	1.5 ohms,1/4W
R990,991	VRS-CY1JB271J	J	AA	270 ohms,1/16W
R992,993	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R994	VRS-CY1JB224J	J	AA	220 kohms,1/16W
⚠ R995	VRS-TW2EE822J	J	AC	8.2 kohms,1/4W
R996	VRS-TW2EE560J	J	AA	56 ohms,1/4W
R3203,3204	VRS-CY1JB101J	J	AA	100 ohm,1/16W
R3208,3209	VRS-CY1JB101J	J	AA	100 ohm,1/16W
R3211	VRS-CY1JB471J	J	AA	470 ohms,1/16W
R3213	VRS-CY1JB471J	J	AA	470 ohms,1/16W
R3215	VRS-CY1JB101J	J	AA	100 ohm,1/16W
R3225~3227	VRS-CY1JB681J	J	AA	680 ohms,1/16W
R3228	VRS-CY1JB101J	J	AA	100 ohm,1/16W
R3229	VRS-CY1JB681J	J	AA	680 ohms,1/16W
R3303	VRS-CY1JB222J	J	AA	2.2 kohms,1/16W
R3310	VRS-CY1JB472J	J	AA	4.7 kohms,1/16W
R3311	VRS-CY1JB335J	J	AA	3.3 Mohms,1/16W
R3314	VRS-CY1JB470J	J	AA	47 ohms,1/16W
R3315	VRS-CY1JB471J	J	AA	470 ohms,1/16W
R3316	VRS-CY1JB335J	J	AA	3.3 Mohms,1/16W
R3317	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R3318,3319	VRS-CY1JB470J	J	AA	47 ohms,1/16W
R3320	VRS-CY1JB471J	J	AA	470 ohms,1/16W
R3343,3344	VRS-CY1JB1R0J	J	AA	1 ohm,1/16W
R3346	VRS-CY1JB470J	J	AA	47 ohms,1/16W
R3501	VRS-CY1JB102J	J	AA	1 kohm,1/16W
R3502~3504	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R3505~3507	VRS-CY1JB332J	J	AA	3.3 kohms,1/16W
R3508,3509	VRS-CY1JB100J	J	AA	10 ohm,1/16W
R3510	VRS-CY1JB472J	J	AA	4.7 kohms,1/16W
R3511	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R3512	VRS-CY1JB100J	J	AA	10 ohm,1/16W
R3513	VRS-CY1JB472J	J	AA	4.7 kohms,1/16W
R3514	VRS-CY1JB102J	J	AA	1 kohm,1/16W
R3515	VRS-CY1JB154J	J	AA	150 kohms,1/16W
R3516	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R3517~3519	VRS-CY1JB102J	J	AA	1 kohm,1/16W
R3520	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R3522	VRS-CY1JB100J	J	AA	10 ohm,1/16W
R3523	VRS-CY1JB473J	J	AA	47 kohms,1/16W
R3524,3525	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R3528	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R3530	VRS-CY1JB103J	J	AA	10 kohm,1/16W

NO.	PART CODE	★	PRICE RANK	DESCRIPTION
R3531	VRS-CY1JB472J	J	AA	4.7 kohms,1/16W
R3532~3535	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R3537,3538	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R3540	VRS-CY1JB472J	J	AA	4.7 kohms,1/16W
R3541	VRS-CY1JB102J	J	AA	1 kohm,1/16W
R3543	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R3544	VRS-CY1JB472J	J	AA	4.7 kohms,1/16W
R3545	VRS-CY1JB102J	J	AA	1 kohm,1/16W
R3546	VRS-CY1JB104J	J	AA	100 kohm,1/16W
R3547	VRS-CY1JB102J	J	AA	1 kohm,1/16W
R3554	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R3556	VRS-CY1JB102J	J	AA	1 kohm,1/16W
R3557	VRS-CY1JB222J	J	AA	2.2 kohms,1/16W
R3558	VRS-CY1JB472J	J	AA	4.7 kohms,1/16W
R3560	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R3564	VRS-CY1JB562J	J	AA	5.6 kohms,1/16W
R3565,3566	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R3568,3569	VRS-CY1JB101J	J	AA	100 ohm,1/16W
R3581	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R3602	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R3603	VRS-CY1JB560F	J	AA	56 ohms,1/16W
R3604	VRS-CY1JB391F	J	AA	390 ohms,1/16W
R3607,3608	VRS-CY1JB560F	J	AA	56 ohms,1/16W
R3610	VRS-CY1JB560F	J	AA	56 ohms,1/16W
R3612	VRS-CY1JB684J	J	AA	680 kohms,1/16W
R3613	VRS-CY1JB151J	J	AA	150 ohms,1/16W
R3615	VRS-CY1JB151J	J	AA	150 ohms,1/16W
R3616	VRS-CY1JB391J	J	AA	390 ohms,1/16W
R3621	VRS-CY1JB221J	J	AA	220 ohms,1/16W
R3661~3664	VRS-CY1JB100J	J	AA	10 ohm,1/16W
R3670	VRS-CY1JB101J	J	AA	100 ohm,1/16W
R3701	VRS-CY1JB223J	J	AA	22 kohms,1/16W
R3702,3703	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R3704	VRS-CY1JB223J	J	AA	22 kohms,1/16W
R3705	VRS-CY1JB682J	J	AA	6.8 kohms,1/16W
R3706	VRS-CY1JB222J	J	AA	2.2 kohms,1/16W
R3708~3711	VRS-CY1JB123J	J	AA	12 kohms,1/16W
R3712	VRS-CY1JB822J	J	AA	8.2 kohms,1/16W
R3714	VRS-CY1JB473J	J	AA	47 kohms,1/16W
R3715	VRS-CY1JB154J	J	AA	150 kohms,1/16W
R3716	VRS-CY1JB181J	J	AA	180 ohms,1/16W
R3717	VRS-CY1JB183J	J	AA	18 kohms,1/16W
R3718~3720	VRS-CY1JB151J	J	AA	150 ohms,1/16W
R3721	VRS-CY1JB222J	J	AA	2.2 kohms,1/16W
R3724	VRS-CY1JB104J	J	AA	100 kohm,1/16W
R3725	VRS-CY1JB102J	J	AA	1 kohm,1/16W
R3727,3728	VRS-CY1JB331J	J	AA	330 ohms,1/16W
R3729	VRS-CY1JB393J	J	AA	39 kohms,1/16W
R3730,3731	VRS-CY1JB273J	J	AA	27 kohms,1/16W
R3732	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R3734~3736	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R3738	VRS-CY1JB333J	J	AA	33 kohms,1/16W
R3739	VRS-CY1JB472J	J	AA	4.7 kohms,1/16W
R3740	VRS-CY1JB473J	J	AA	47 kohms,1/16W
R3742	VRS-CY1JB333J	J	AA	33 kohms,1/16W
R3743	VRS-CY1JB152J	J	AA	1.5 kohms,1/16W
R3744	VRS-CY1JB473J	J	AA	47 kohms,1/16W
R3745	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R3746	VRS-CY1JB104J	J	AA	100 kohm,1/16W
R3748	VRS-CY1JB333J	J	AA	33 kohms,1/16W
R3750	VRS-CY1JB154J	J	AA	150 kohms,1/16W
R3753	VRS-CY1JB334J	J	AA	330 kohms,1/16W
R3754	VRS-CY1JB105J	J	AA	1 Mohm,1/16W
R3755	VRS-CY1JB471J	J	AA	470 ohms,1/16W
R3756	VRS-CY1JB100J	J	AA	10 ohm,1/16W
R3757,3758	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R3759,3760	VRS-CY1JB102J	J	AA	1 kohm,1/16W
R3817	VRS-CY1JB102J	J	AA	1 kohm,1/16W
R3821,3822	VRS-CY1JB223J	J	AA	22 kohms,1/16W
R3824	VRS-CY1JB333J	J	AA	33 kohms,1/16W
R3825	VRS-CY1JB223J	J	AA	22 kohms,1/16W
R3826	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R3829	VRS-CY1JB103J	J	AA	10 kohm,1/16W
R3830	VRS-CY1JB473J	J	AA	47 kohms,1/16W
R3834	VRS-CY1JB822J	J	AA	8.2 kohms,1/16W
R3905	VRS-CY1JB822J	J	AA	8.2 kohms,1/16W
R3906	VRS-CY1JB153J	J	AA	15 kohms,1/16W
R5001~5003	VRS-CY1JB152J	J	AA	1.5 kohms,1/16W
R5004~5006	VRS-CY1JB681J	J	AA	680 ohms,1/16W
R5007~5009	VRS-CY1JB391J	J	AA	390 ohms,1/16W
R5010~5012	VRS-CY1JB392J	J	AA	3.9 kohms,1/16W
R5013~5015	VRS-CY1JB391J	J	AA	390 ohms,1/16W

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
R5016~5018	VRS-CY1JB102J	J	AA	1 kohm,1/16W
R5019	VRS-CY1JB821J	J	AA	820 ohms,1/16W
R5020	VRS-CY1JB471J	J	AA	470 ohms,1/16W
R5021	VRS-CY1JB821J	J	AA	820 ohms,1/16W
R5022	VRS-CY1JB471J	J	AA	470 ohms,1/16W
R5023	VRS-CY1JB821J	J	AA	820 ohms,1/16W
R5024	VRS-CY1JB471J	J	AA	470 ohms,1/16W
R5025	VRS-CY1JB122J	J	AA	1.2 kohms,1/16W
R5026	VRS-CY1JB391J	J	AA	390 ohms,1/16W
R5027	VRS-CY1JB122J	J	AA	1.2 kohms,1/16W
R5028	VRS-CY1JB391J	J	AA	390 ohms,1/16W
R5029	VRS-CY1JB122J	J	AA	1.2 kohms,1/16W
R5030	VRS-CY1JB391J	J	AA	390 ohms,1/16W
R5031	VRS-CY1JB682J	J	AA	6.8 kohms,1/16W
R5032	VRS-CY1JB332J	J	AA	3.3 kohms,1/16W
R5033	VRS-CY1JB682J	J	AA	6.8 kohms,1/16W
R5034	VRS-CY1JB332J	J	AA	3.3 kohms,1/16W
R5035	VRS-CY1JB682J	J	AA	6.8 kohms,1/16W
R5036	VRS-CY1JB332J	J	AA	3.3 kohms,1/16W
R5037~5039	VRS-TV2AB271J	J	AA	270 ohms,1/10W
R5040~5042	VRS-TV2AB391J	J	AA	390 ohms,1/10W
R5071	VRS-CY1JB152J	J	AA	1.5 kohms,1/16W
R5072	VRS-CY1JB681J	J	AA	680 ohms,1/16W
R5073	VRS-CY1JB391J	J	AA	390 ohms,1/16W
R5074	VRS-CY1JB392J	J	AA	3.9 kohms,1/16W
R5075	VRS-CY1JB391J	J	AA	390 ohms,1/16W
R5076	VRS-CY1JB102J	J	AA	1 kohm,1/16W
R5077	VRS-CY1JB821J	J	AA	820 ohms,1/16W
R5078	VRS-CY1JB471J	J	AA	470 ohms,1/16W
R5079	VRS-CY1JB122J	J	AA	1.2 kohms,1/16W
R5080	VRS-CY1JB391J	J	AA	390 ohms,1/16W
R5081	VRS-CY1JB682J	J	AA	6.8 kohms,1/16W
R5082	VRS-CY1JB332J	J	AA	3.3 kohms,1/16W
R5083	VRS-TV2AB271J	J	AA	270 ohms,1/10W
R5084	VRS-TV2AB391J	J	AA	390 ohms,1/10W
RA100,101	VRS-CY1JB332J	J	AA	3.3 kohms,1/16W
RA102,103	VRS-CY1JB203J	J	AA	20 kohms,1/16W
RA104,105	VRS-CY1JB753D	J	AA	75 kohms,1/16W
RA108,109	VRS-CY1JB753D	J	AA	75 kohms,1/16W
RA112~115	VRS-CY1JB222J	J	AA	2.2 kohms,1/16W
RA117~120	VRS-CY1JB221J	J	AA	220 ohms,1/16W
RA121~124	VRS-CY1JB101J	J	AA	100 ohm,1/16W
RA125,126	VRS-CY1JB222D	J	AA	2.2 kohms,1/16W
RA127~130	VRS-CY1JB561D	J	AB	560 ohms,1/16W
RA131,132	VRS-CY1JB222D	J	AA	2.2 kohms,1/16W
RA153	VRS-CY1JB102J	J	AA	1 kohm,1/16W
RA154	VRS-CY1JB152J	J	AA	1.5 kohms,1/16W
RA173,174	VRS-CY1JB822J	J	AA	8.2 kohms,1/16W
RA175,176	VRS-CY1JB222J	J	AA	2.2 kohms,1/16W
RA177,178	VRS-CY1JB101J	J	AA	100 ohm,1/16W
RA179,180	VRS-CY1JB391J	J	AA	390 ohms,1/16W
RA181~184	VRS-CY1JB124D	J	AA	120 kohms,1/16W
RA202	VRS-CY1JB102J	J	AA	1 kohm,1/16W
RA280,281	VRS-CY1JB821D	J	AA	820 ohms,1/16W
RA282~285	VRS-CY1JB151D	J	AA	150 ohms,1/16W
RA286,287	VRS-CY1JB821D	J	AA	820 ohms,1/16W
RA339	VRS-CY1JB473J	J	AA	47 kohms,1/16W
RA353	VRS-CY1JB391J	J	AA	390 ohms,1/16W
RE01~51	VRS-CY1JB102J	J	AA	1 kohm,1/16W
RE52~93	VRS-CY1JB473J	J	AA	47 kohms,1/16W
RE94~97	VRS-CY1JB102J	J	AA	1 kohm,1/16W
RE98	VRS-CY1JB183J	J	AA	18 kohms,1/16W
RE99	VRS-CY1JB473J	J	AA	47 kohms,1/16W
RF01~08	VRS-CY1JB473J	J	AA	47 kohms,1/16W
RF09	VRS-CY1JB561J	J	AA	560 ohms,1/16W
RF10	VRS-TV2AB821J	J	AA	820 ohms,1/10W
RF11	VRS-TV2AB102J	J	AA	1 kohm,1/10W
RF12~14	VRS-CY1JB472J	J	AA	4.7 kohms,1/16W
RF15	VRS-TV2AB102J	J	AA	1 kohm,1/10W
RF16	VRS-TV2AB180J	J	AA	18 ohms,1/10W
RF17	VRS-TV2AB220J	J	AA	22 ohms,1/10W
RF18	VRS-CY1JB182J	J	AA	1.8 kohms,1/16W
RF19	VRS-CY1JB222J	J	AA	2.2 kohms,1/16W
RF20	VRS-CY1JB332J	J	AA	3.3 kohms,1/16W
RF21	VRS-CY1JB182J	J	AA	1.8 kohms,1/16W
RF22	VRS-CY1JB222J	J	AA	2.2 kohms,1/16W
RF23	VRS-CY1JB332J	J	AA	3.3 kohms,1/16W
RF24	VRS-CY1JB562J	J	AA	5.6 kohms,1/16W
RF25,26	VRS-CY1JB821J	J	AA	820 ohms,1/16W
RF28~30	VRS-CY1JB472J	J	AA	4.7 kohms,1/16W
RF31	VRS-VT3LA6R8J	J	AC	6.8 ohms,3W
RF32	VRS-VT3LA8R2J	J	AC	8.2 ohms,3W

NO.	PART CODE	★	PRICE RANK	DESCRIPTION
RF33	VRS-CY1JB223J	J	AA	22 kohms,1/16W
RF34	VRS-TV2AB821J	J	AA	820 ohms,1/10W
RF35,36	VRS-TV2AB102J	J	AA	1 kohm,1/10W
RF38	VRS-CY1JB104J	J	AA	100 kohm,1/16W
RF39	VRS-CY1JB103J	J	AA	10 kohm,1/16W
RF40,41	VRS-CY1JB102J	J	AA	1 kohm,1/16W
RF42	VRS-CY1JB272J	J	AA	2.7 kohms,1/16W
RF43	VRS-CY1JB221J	J	AA	220 ohms,1/16W
RF44	VRS-CY1JB102J	J	AA	1 kohm,1/16W
RF45	VRS-CY1JB221J	J	AA	220 ohms,1/16W
RF46,47	VRS-CY1JB102J	J	AA	1 kohm,1/16W
RF48	VRS-VT3LA6R8J	J	AC	6.8 ohms,3W
RF49	VRS-VT3LA8R2J	J	AC	8.2 ohms,3W
RF53	VRS-CY1JB102J	J	AA	1 kohm,1/16W
RF54	VRS-CY1JB333J	J	AA	33 kohms,1/16W
RF55	VRS-CY1JB123J	J	AA	12 kohms,1/16W
RF56	VRS-CY1JB333J	J	AA	33 kohms,1/16W
RF57	VRS-CY1JB104J	J	AA	100 kohm,1/16W
RF58	VRS-CY1JB123J	J	AA	12 kohms,1/16W
RF59	VRS-CY1JB103J	J	AA	10 kohm,1/16W
RF60	VRS-CY1JB104J	J	AA	100 kohm,1/16W
RF61	VRS-CY1JB102J	J	AA	1 kohm,1/16W
RF62,63	VRS-CY1JB821J	J	AA	820 ohms,1/16W
RF64~69	VRS-TW2EE1R2J	J	AC	1.2 ohms,1/4W
RF70	VRS-CY1JB102J	J	AA	1 kohm,1/16W
RT01~04	VRS-CY1JB102J	J	AA	1 kohm,1/16W
RT05~07	VRS-CY1JB224J	J	AA	220 kohms,1/16W
RT08,09	VRS-CY1JB563J	J	AA	56 kohms,1/16W
RT10	VRS-CY1JB103J	J	AA	10 kohm,1/16W
RT11	VRS-CY1JB224J	J	AA	220 kohms,1/16W
RT12~15	VRS-CY1JB102J	J	AA	1 kohm,1/16W
RT16	VRS-CY1JB103J	J	AA	10 kohm,1/16W
RV01,02	VRS-CY1JB273J	J	AA	27 kohms,1/16W
RV03,04	VRS-CY1JB473J	J	AA	47 kohms,1/16W
RV05	VRS-CY1JB102J	J	AA	1 kohm,1/16W
RV06	VRS-TW2EE750J	J	AC	75 ohms,1/4W
RV08,09	VRS-CY1JB103J	J	AA	10 kohm,1/16W
RV10~13	VRS-CY1JB331J	J	AA	330 ohms,1/16W
RV14,15	VRS-CY1JB103J	J	AA	10 kohm,1/16W
RV17	VRS-CY1JB103J	J	AA	10 kohm,1/16W
RV18~21	VRS-TW2EE750J	J	AC	75 ohms,1/4W
RV22	VRS-CY1JB102J	J	AA	1 kohm,1/16W
RV23	VRS-TW2EE750J	J	AC	75 ohms,1/4W
RV25	VRS-CY1JB474J	J	AA	470 kohms,1/16W
RV26	VRS-TW2EE750J	J	AC	75 ohms,1/4W
RV27	VRS-CY1JB102J	J	AA	1 kohm,1/16W
RV28	VRS-CY1JB103J	J	AA	10 kohm,1/16W
RV29,30	VRS-TW2EE750J	J	AC	75 ohms,1/4W
RV31	VRS-CY1JB102J	J	AA	1 kohm,1/16W
RV32	VRS-TW2EE750J	J	AC	75 ohms,1/4W
RV33	VRS-CY1JB102J	J	AA	1 kohm,1/16W
RV34,35	VRS-TW2EE750J	J	AC	75 ohms,1/4W
RV36	VRS-TW2EE560J	J	AA	56 ohms,1/4W
RV37~39	VRS-TW2EE750J	J	AC	75 ohms,1/4W
RV40	VRS-CY1JB471J	J	AA	470 ohms,1/16W
RV41	VRS-TW2EE750J	J	AC	75 ohms,1/4W
RV42	VRS-CY1JB103J	J	AA	10 kohm,1/16W
RV43,44	VRS-CY1JB223J	J	AA	22 kohms,1/16W
RV45,46	VRS-CY1JB473J	J	AA	47 kohms,1/16W
RV47,48	VRS-CY1JB223J	J	AA	22 kohms,1/16W
RV49,50	VRS-CY1JB473J	J	AA	47 kohms,1/16W
RV51,52	VRS-CY1JB101J	J	AA	100 ohm,1/16W
RV53,54	VRS-CY1JB561J	J	AA	560 ohms,1/16W
RV55,56	VRS-CY1JB221J	J	AA	220 ohms,1/16W
RV57	VRS-CY1JB221J	J	AA	220 ohms,1/16W
RV59	VRS-CY1JB561J	J	AA	560 ohms,1/16W
RV61~64	VRS-CY1JB102J	J	AA	1 kohm,1/16W
RV66~73	VRS-CY1JB102J	J	AA	1 kohm,1/16W
RV80	VRS-CY1JB471J	J	AA	470 ohms,1/16W
RV82	VRS-CY1JB472J	J	AA	4.7 kohms,1/16W
RV83	VRS-TW2EE750J	J	AC	75 ohms,1/4W
RV84	VRS-CY1JB222J	J	AA	2.2 kohms,1/16W
RV85	VRS-CY1JB103J	J	AA	10 kohm,1/16W
RV86	VRS-CY1JB223J	J	AA	22 kohms,1/16W
RV87	VRS-CY1JB331J	J	AA	330 ohms,1/16W
RV88	VRS-CY1JB472J	J	AA	4.7 kohms,1/16W
RV89	VRS-CY1JB101J	J	AA	100 ohm,1/16W
RV90	VRS-CY1JB332J	J	AA	3.3 kohms,1/16W
RV91	VRS-CY1JB272J	J	AA	2.7 kohms,1/16W
RV92	VRS-CY1JB223J	J	AA	22 kohms,1/16W
RV97,98	VRS-CY1JB102J	J	AA	1 kohm,1/16W
⚠ RZ903,904	VRS-TW2EE124J	J	AB	120 kohms,1/4W
⚠ RZ905	VRS-TW2EE154J	J	AC	150 kohms,1/4W
RZ906	VRS-CY1JB242D	J	AB	2.4 kohms,1/16W
RZ907	VRS-CY1JB122D	J	AA	1.2 kohms,1/16W

OTHER CIRCUITRY PARTS

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
BI504/CNS504	QCNWN2148AWZZ	J	AF	Connector Ass'y,5/5Pin
BI901A/B	QCNWN2132AWZZ	J	AD	Connector Ass'y,2/2Pin
BI902/CNS902	QCNWN2135AWZZ	J	AF	Connector Ass'y,3/3Pin
BIA106/CNSA106	QCNWN2087AWZZ	J	AG	Connector Ass'y,3/3Pin
BIA111/CNSA111	QCNWN2323AWZZ	J	AL	Connector Ass'y,5/5Pin
BIE01/CNSE01	QCNWN2140AWZZ	J	AH	Connector Ass'y,7/7Pin
BIE02/CNSE02	QCNWN2146AWZZ	J	AH	Connector Ass'y,10/10Pin
BIE03/CNSE03	QCNWN2147AWZZ	J	AH	Connector Ass'y,9/9Pin
BIE04/CNSE04	QCNWN2133AWZZ	J	AG	Connector Ass'y,7/7Pin
BIE05A/B	QCNWN2207AWZZ	J	AE	Connector Ass'y,2/2Pin
BIE06/08/CNSE	QCNWN2270AWZZ	J	AM	Connector Ass'y,15/2/13/2Pin
BIE07/CNSE07	QCNWN2225AWZZ	J	AD	Connector Ass'y,2/2Pin
CN1	QCNCWXF30AFZZ	J	AF	Socket,30Pin
CN2	QCNCW2835RC5J	J	AL	Socket,50Pin
CNP101	QCNCM891QAFZZ	J	AK	Socket,15Pin
CNP301	QCNCWYR22AWZZ	J	AE	Socket,22Pin
CNP302	QCNCM890MAFZZ	J	AH	Plug,12Pin
CNP303	QCNCM891BAFZZ	J	AC	Plug,2Pin
CNP304	QCNCM891CAFZZ	J	AD	Plug,3Pin
CNP305	QCNCM941JAFZZ	J	AG	Plug,9Pin
CNP306	QCNCWYR32AWZZ	J	AK	Socket,32Pin
CNP307	QCNCM890JAFZZ	J	AG	Plug,9Pin
CNP308	QCNCM602BAFZZ	J	AA	Plug,2Pin
CNP502	QCNCM922KAFZZ	J	AH	Plug,10Pin
CNP503	QCNCWYR15AWZZ	J	AF	Socket,15Pin
CNP504	QCNCM922EAFZZ	J	AF	Plug,5Pin
CNP505	QCNCM922CAFZZ	J	AF	Plug,3Pin
CNP506	QCNCM890BAFZZ	J	AC	Plug,2Pin
CNP507	QCNCW053QAWZZ	J	AH	Socket,15Pin
CNP508	QCNCM058JAWZZ	J	AG	Plug,9Pin
CNP701~703	QCNCM670EAFZZ	J	AC	Plug,5Pin
CNP704	QCNCM670CAFZZ	J	AB	Plug,3Pin
CNP705	92LCONE4P5268	J	AC	Plug,4Pin
CNP706	QCNCM869DAFZZ	J	AB	Plug,4Pin
CNP707	QCNCM869EAFZZ	J	AD	Plug,5Pin
CNP708	QCNCM778MAFZZ	J	AF	Plug,12Pin
CNP709	QCNCM057MAWZZ	J	AG	Plug,12Pin
CNP714	92LCONE2P5268	J	AB	Plug,2Pin
CNP903	QCNCM869BAFZZ	J	AB	Plug,2Pin
CNP904	QCNCM010HAWZZ	J	AC	Plug,8Pin
CNP905	QCNCM010NAWZZ	J	AC	Plug,13Pin
CNP906	QCNCM010KAWZZ	J	AC	Plug,10Pin
CNP907	92LCONE7P53015	J	AC	Plug,7Pin
CNP908	QCNCM869NAFZZ	J	AF	Plug,13Pin
CNPA110	92LCONE4P5267X	J	AB	Plug,4Pin
CNPA112	92LCONE5P53253	J	AB	Plug,5Pin
CNPE01~03	QCNCM808EAFZZ	J	AF	Plug,5Pin
CNPV01	QCNCM890JAFZZ	J	AG	Plug,9Pin
CNPV02	QCNCM890DAFZZ	J	AF	Plug,4Pin
CNS101	QCNCM941QAFZZ	J	AK	Plug,15Pin
CNS301	QCNCWYV22AWZZ	J	AE	Socket,22Pin
CNS303	QCNWN2195AWZZ	J	AD	Connector Ass'y,2Pin
CNS304	QCNWN2196AWZZ	J	AE	Connector Ass'y,3Pin
CNS306	QCNCWYN32AWZZ	J	AL	Socket,32Pin
CNS503	QCNCWYV15AWZZ	J	AE	Socket,15Pin
CNS904	QCNCW010HAWZZ	J	AD	Socket,8Pin
CNS905	QCNCW010NAWZZ	J	AC	Socket,13Pin
CNS906	QCNCW010KAWZZ	J	AD	Plug,10Pin
CNSA110A/B	QCNWN2095AWZZ	J	AF	Connector Ass'y,4/4Pin
CNSA110C/D	QCNWN2354AWZZ	J		Connector Ass'y,4/5Pin
CNSA110E/F	QCNWN2236AWZZ	J	AF	Connector Ass'y,4/4Pin
CNSA112A/B	QCNWN2089AWZZ	J	AF	Connector Ass'y,5/5Pin
CNSA112C/D	QCNWN2235AWZZ	J	AF	Connector Ass'y,5/5Pin
CNSA112E/F	QCNWN2234AWZZ	J	AF	Connector Ass'y,5/5Pin
CNW101	QCNWN2149AWZZ	J	AL	Connector Ass'y,15Pin
CNW306	QCNWN2230AWZZ	J	AF	Flat Cable,32Pin
CNW507	QCNWN2151AWZZ	J	AE	Flat Cable,15Pin
CNW508A/508B/508	QCNWN2143AWZZ	J	AH	Connector Ass'y,9/3/3/3Pin
CP3201	QCNCM890GAFZZ	J	AE	Plug,7Pin
CP3202	QCNCM890MAFZZ	J	AH	Plug,12Pin
CP5001	QCNCM890JAFZZ	J	AG	Plug,9Pin
CS3301	QCNCW2835RC5J	J	AL	Socket,50Pin
⚠ F901	QFS-C252AAWNL	J	AD	Fuse,T2.5A L250V
FLE01	VVKHNA15LS+-1	J	BB	FL Display
FW1(272-4)	QCNWN2053AWZZ	J	AN	Flat Cable,50Pin

NO.	PART CODE	★	PRICE RANK	DESCRIPTION
K1,2	QLUGP0002AWZZ	J	AB	Lug
M1	————			Motor with Chassis [Spindle]
M2	————			Motor with Gear [Sled]
M3	RMOTV0043AWZZ	J	AN	DVD/CD Lid Motor
M4	RMOTV0048AWZZ	J	AZ	Motor,Air Cooling Fan
⚠ PC901,902	VHPTLP621-1BL	J	AF	Photo Interupter
RL701	RRLYD0017AWZZ	J	AM	Relay
RL702~705	RRLYD0019AWZZ	J	AL	Relay
RLY01,02	RRLYU0001AWZZ	J	AS	Relay
SO701,702	QTANZ0602AWZZ	J	AR	Terminal,Speaker
⚠ SO900	QSOCA0302AWZZ	J	AN	Socket,AC Input
SOE01	QJAKH0001AWZZ	J	AH	Jack,Headphones
SOV01,02	QSOCZ0005AWZZ	J	AH	Terminal,SCART
SOV03	QSOCZ0003AWZZ	J	AN	Terminal,VTR Input
SOV04	QSOCZ0006AWZZ	J	AM	Terminal,S-Video/Video/ Subwoofer Output
SW1	QSW-B0005AWZZ	J	AG	Switch,Lever Type [Open/Close]
SW4(272-5)	QSW-F9001AW01	J	AD	Switch,Leaf Type [Pickup In]
SWE01	92LSWICHT1663T	J	AC	Switch,Key Type [ON/Stand-by]
SWE02	92LSWICHT1663T	J	AC	Switch,Key Type [Play]
SWE03	92LSWICHT1663T	J	AC	Switch,Key Type [Stop]
SWE04	92LSWICHT1663T	J	AC	Switch,Key Type [Function]
SWE05	92LSWICHT1663T	J	AC	Switch,Key Type [BAND]
SWE06	92LSWICHT1663T	J	AC	Switch,Key Type [Open/Close]
SWE07	92LSWICHT1663T	J	AC	Switch,Key Type [Skip Down]
SWE08	92LSWICHT1663T	J	AC	Switch,Key Type [Skip Up]
SWE09	92LSWICHT1663T	J	AC	Switch,Key Type [Volume Down]
SWE10	92LSWICHT1663T	J	AC	Switch,Key Type [Volume Up]
SWV01	QSW-S0033AWZZ	J	AF	Switch,Slide Type [DVD Viedo Out Selector]
TUN1	RTUNS0023AWZZ	J	BM	Tuner Unit
⚠ VA901	VHVTN10V471-1	J	AE	Varistor,10V471K

CABINET PARTS

201	GCABA1292AWSA	J	AN	Side Cabinet,Left
202	GCABA1293AWSA	J	AN	Side Cabinet,Right
203	GCABC1254AWSA	J	AP	Top Cabinet
204	GDORF0111AWZZ	J	AM	Door
205	GITAR1050AWSA	J	AM	Rear Panel
206	HBDGB3107AFSA	J	AL	Badge,SHARP
207	HDECQ0832AWSA	J	AD	Digital Indicator
208	HDECQ0831AWSA	J	BB	Decoration Window,Front
209	HDECQ0818AWSA	J	AT	Decoration Window,DVD/CD
210	HPNLC3008AWSA	J	BB	Front Panel
211	HPNLC3007AWSA	J	BG	DVD/CD Door Panel
212	HPNLZ3001AWSA	J	BE	Top Panel
213	JKNBZ0858AWSA	J	AG	Button,Power/Door Open/Close
214	JKNBZ0859AWSA	J	AG	Button,Function
216	LANGF0061AWFW	J	AF	Bracket,1-Bit Amp.(Left)
217	LANGF0062AWFW	J	AE	Bracket,1-Bit Amp.(Right)
218	LANGF0063AWFW	J	AE	Bracket,Top
219	LANGK0304AWFW	J	AE	Bracket,Speaker PWB
220	LANGK0305AWFW	J	AC	Bracket,Power B PWB,A
221	LANGK0306AWFW	J	AE	Bracket,Fan Support,A
222	LANGK0307AWFW	J	AF	Bracket,Fan Support,B
223	LANGK0323AWFW	J	AF	Bracket,Speaker PWB,B
224	LANGT0042AWFW	J	AC	Bracket,Power B PWB,B
225	LANGT0131AWFW	J	AE	Bracket,DVD Servo PWB
226	LBNDJ2008SCZZ	J	AA	Nylon Band
227	LCHSA0003AWFW	J	AP	Shield Cover,1-Bit Amp.
228	LCHSM0146AWFW	J	AP	Main Chassis
229	LHLDM1017AWZZ	J	AE	Stabilizer
230	LHLDS1009AWZZ	J	AC	Stopper
231	LHLDZ1325AW00	J	AC	Holder,Edge
232	LHLDZ1389AWSA	J	AB	Cover,Connector
233	LHLDZ1395AWSA	J	AT	Frame,Front
234	LHLDZ1396AWZZ	J	AE	Holder,FL Display
235	LHLDZ1397AWZZ	J	AD	Holder,LED
236	LHLDZ1401AWZZ	J	AG	Tray
237	LHLDZ1404AWZZ	J	AD	CD Adaptor,8cm
238	LPLTM0011AWFW	J	AC	Plate,York
239	MARMP0012AWZZ	J	AC	Lever,Adaptor Support
240	MLEVP0118AWZZ	J	AC	Lever,DVD/CD Up
241	MSPRD0175AWFW	J	AB	Spring,Adaptor
242	MSPRD0176AWFW	J	AB	Spring,Door
244	PCUSG0008AWZZ	J	AB	Cushion
246	PCUSG0102AWZZ	J	AB	Cushion,Leg [Front]
248	PCUSG0110AWZZ	J	AB	Cushion,Door,A
249	PCUSG0111AWZZ	J	AB	Cushion,Door,B
250	PCUSG0119AWZZ	J	AB	Cushion,Door,C

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
251	PFLT-0059AWZZ	J	AD	Felt,Stabilizer
252	PFLT-0061AWZZ	J	AB	Felt,Tray
253	PFLT-0062AWZZ	J	AB	Felt,Adaptor
254	PMAGF0004AWZZ	J	AF	Magnet
255	PRDAR0186AWFW	J	AH	Heat Sink,B (1-Bit Amp.)
256	PRDAR0210AWFW	J	AN	Heat Sink,A (1-Bit Amp.)
257	PRDAR0215AWFW	J	AK	Heat Sink,A
258	PRDAR0216AWFW	J	AF	Heat Sink,B
259	PSHEM0016AWFW	J	AG	Sheet,Power Shield
260	PSHEP0047AWZZ	J	AD	Sheet,Display Window
261	PSHEP0076AWZZ	J	AE	Sheet,Function
262	PSHEP0077AWZZ	J	AN	Sheet,Power,A
263	PSHEF0028AWZZ	J	AB	Sheet
265	PSLDM3092AWFW	J	AN	Shield Case,1-Bit Amp.
266	PSLDM3093AWFW	J	AF	Shield Case,DVD Servo PWB
267	PSLDM3094AWFW	J	AH	Shield Case,DSP PWB
268	PSPAS0003AWZZ	J	AC	Cushion
⚠ 269	QFSHD0001AWZZ	J	AB	Holder,Fuse
271	DUNTZ3770AW01	J	AZ	Gear Box Ass'y
271- 1	LHLDZ1402AWZZ	J	AD	Gear Box,A
271- 2	LHLDZ1403AWZZ	J	AE	Gear Box,B
271- 3	LHLDZ1405AWZZ	J	AF	Holder,Arm Base
271- 4	MLEVF0107AWFW	J	AN	Cam Arm Ass'y
271- 5	NGERH0124AWZZ	J	AF	Gear,Reduc.B
271- 6	NGERH0133AWZZ	J	AD	Gear B,Drive
271- 7	NGERW0027AWZZ	J	AC	Gear,Worm,B
271- 8	NGERW0029AWZZ	J	AE	Gear,Worm Wheel,B
271- 9	NGERZ0003AWZZ	J	AE	Gear,Pivot
271-10	NROLM0010AWFW	J	AD	Roller,Arm
271-11	NSFTZ0006AWFD	J	AE	Shaft,Arm
272	92LDVDMECA3855	J		DVD Mechanism Ass'y
272- 1	PCOVP3002AWZZ	J	AM	Cover,DVD Mechanism
272- 2	PCUSG0095AWZZ	J	AD	Cushion
272- 3(FW1)	QCNWN2053AWZZ	J	AN	Flat Cable,50Pin
272- 4(SW4)	QSW-F9001AW01	J	AD	Switch,Leaf Type [Pickup In]
272- 5	92LMTR3720BASY	J	AM	Sled Motor Ass'y
273	PSHEP0072AWSA	J	AD	Filter,Color
274	GCOVA1445AWSA	J	AN	Cover,Speaker Terminal
276	QCNWN2303AWZZ	J	AC	Lug Wire
277	PCUSS0050AWZZ	J	AB	Cushion
278	PSHEP0093AWZZ	J	AL	Shield,PWB E
279	PSHEP0099AWZZ	J		Shield,PWB F
280	PFLT-0068AWZZ	J	AC	Felt
281	TCAUS0074AWZZ	J	AB	Label,Class 3A Caution
282	PCUSG0121AWZZ	J	AD	Cushion,Disc
284	PSHEP0092AWZZ	J	AL	Shield
285	PCUSG0124AWZZ	J		Cushion Leg [Rear]
601	LX-EZ0005AWFD	J	AA	Screw,Special
602	LX-JZ0010AFFD	J	AA	Screw,ø3×10mm
603	LX-JZ0033AFFF	J	AA	Screw,ø3×8mm
604	LX-BZ0073AWFD	J	AB	Screw,Special
605	XBBSD20P04000	J	AA	Screw,ø2×4mm
606	XEBSD26P10000	J	AA	Screw,ø2.6×10mm
607	XEBSD30P10000	J	AA	Screw,ø3×10mm
608	XESSD26P08000	J		Screw,ø2.6×8mm
609	XJBSD30P08000	J	AA	Screw,ø3×8mm
610	XJBSD30P16000	J	AA	Screw,ø3×16mm
611	XJBSF30P06000	J	AA	Screw,ø3×6mm
612	XJBSF30P08000	J	AA	Screw,ø3×8mm
613	XJBSF30P10000	J	AA	Screw,ø3×10mm
614	XRESJ30-06000	J	AA	Ring,E"Type,ø3×0.6mm
615	XWHJZ42-05080	J	AB	Washer,ø3.2×ø8×0.5mm
616	XWHSD32-10130	J	AA	Washer,ø3.2×ø13×1.0mm
617	XWSSN32-07000	J	AB	Washer,ø3.2mm
619	LX-HZ0169AFFD	J	AA	Screw,ø4×8mm
620	LX-BZ0060AWFD	J	AB	Screw,Special
621	LX-JZ0039AFFD	J	AA	Screw,ø3×12mm
622	XJSSD30P06000	J	AA	Screw,ø3×6mm
623	XHBSF30P14000	J	AA	Screw,ø3×14mm

ACCESSORIES/PACKING PARTS

	————		—	Battery (Not Replacement Item)
⚠	QACCB0013AW00	J	AV	AC Power Supply Cord
⚠	QACCE0013AW00	J	AP	AC Power Supply Cord
	SPAKZ0898AWZZ	J		Pad,Accessories
	QCNWG0044AWZZ	J	AX	Video Cable
	92LFANT1535A	J	AF	FM Antenna
	RRMCG0338AWSA	J	BF	Remote Control
	SPAKA0383AWZZ	J	AK	Packing Add.,Top

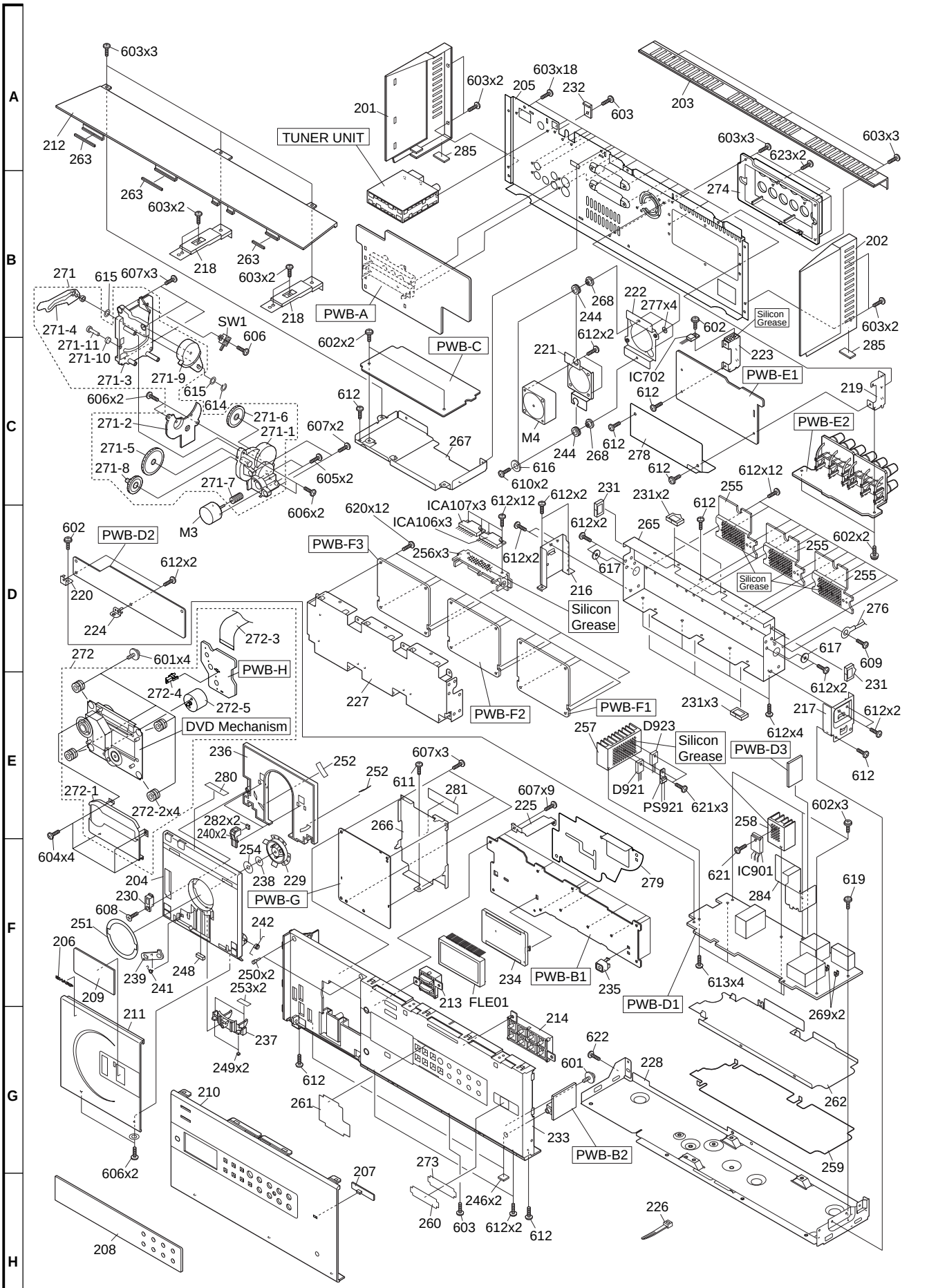
NO.	PART CODE	★	PRICE RANK	DESCRIPTION
	SPAKC1483AWZZ	J		Packing Case
	SSAKH0076AWZZ	J	AD	Polyethylene Bag,Unit
	TINSZ0830AWZZ	J	AR	Operation Manual
	TCAUZ0133AWZZ	J	AB	Sheet,Heat Caution
	92LBAG1770A	J	AB	Polyethylene Bag,AC Power Supply Cord
	QANTL0012AWZZ	J	AS	AM Loop Antenna
	TCADS0004AWZZ	J	AD	Card,Service
	TLABE0675AWZZ	J		Label,Bar Code
	SPAKZ0884AWZZ	J	AK	Pad,Spacer
	SPAKF0017AWZZ	J		Case,Operation Manual
	SPAKF0018AWZZ	J		Case,Accessories
	TINSZ0847AWZZ	J		Sheet,Speaker Connection
	92LBAG1460C1	J	AB	Polyethylene Bag,Accessories

P.W.B. ASSEMBLY (Not Replacement Item)

PWB-A	92LPWB3836MANS	J	—	Main
PWB-B1,2	92LPWB3836DPLS	J	—	Display/Headphones
PWB-C	92LPWB4282DSPS	J	—	DSP
⚠ PWB-D1~3	92LPWB3836PWRS	J	—	Power A/Power B/Power C
PWB-E1,2	92LPWB4282SPKS	J	–-	Speaker A/Speaker B
PWB-F1~3	92LPWB4642AMPS	J	–-	1-Bit Amp.
PWB-G	92LPWB3836DVDS	J	–-	DVD Servo
PWB-H	QPWBF0759AWZZ	J	AE	DVD Motor (PWB Only)

OTHER SERVICE PARTS

	QCNWK0001AWZZ	J	AP	Personal Cable
	RUNTK0808GEZZ	J		RS-232C Level Converter PWB



Note: Only the unit and consumable parts are supplied as parts supply for the DVD mechanism.

Figure 12 CABINET EXPLODED VIEW

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